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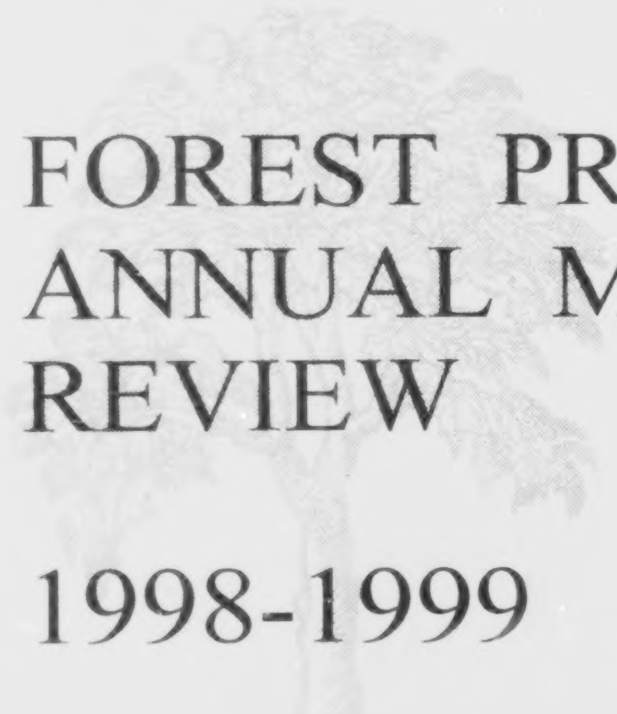
FOREST PRODUCTS ANNUAL MARKET REVIEW

1998-1999



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United Nations Economic Commission for Europe
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of the United Nations

Timber Section
Geneva, Switzerland

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NOTE

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Any data provided under the heading "Yugoslavia" relate to the Federal Republic of Yugoslavia which, in accordance with General Assembly Resolutions 47/1 and 47/229, cannot continue automatically the membership of the former Socialist Federal Republic of Yugoslavia.

ABSTRACT

The *Forest Products Annual Market Review, 1998-1999* provides general and statistical information on forest products markets in the UN-ECE region of Europe, North America and the Commonwealth of Independent States. The *Review* begins with a general overview of the forest products markets in the region followed by a description of the economic situation in the region. Four special chapters are included this year: "Forest products markets in Estonia," "Forest products markets in New Zealand," "Trade restrictions and their future" and "Forest products in the electronic marketplace." In addition a new chapter has been added to regularily cover the "Certified forest products marketplace." The developments in six sectors are described for markets of roundwood, sawn softwood, sawn hardwood, tropical hardwoods, wood-based panels and paper and paperboard, woodpulp and pulpwood. For each sector, production, consumption and trade are considered and relevant material on specific markets is included. Tables included with the text present detailed information and annex tables contain further reference material.

DATA SOURCES

This *Review* was compiled using data from ECE-region countries responding to a joint FAO/ECE/EUROSTAT/ITTO questionnaire and other data available until the end of May 1999. The authors express their appreciation to contributing countries which included all major ECE-region producers and traders. In light of the problems with reporting intra-European Union trade statistics, UN COMTRADE statistics or estimations of trade provided by the respondents enabled a timely estimation of the 1998 European market. Supplementary data were obtained from industry associations and other sources where official data were lacking.

Additionally a wide range of specialized trade journals were used to supplement information and the authors have tried to give proper citation to them. Country specialists and institutions, including the important statistical contacts, were called upon for additional information. Most of these people are listed below.

The World Wide Web is a growing source of information for the secretariat in producing this *Review* and the authors appreciate the availability of countries' forest products statistics in this convenient format.

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PREFACE

The ECE/FAO *Forest Products Annual Market Review, 1998-1999* provides a statistical analysis and general information on forest products markets in the UN-ECE region, including Europe, North America and the Commonwealth of Independent States, for the period beginning 1998 through mid 1999. The *Review* serves as a background document for the ECE Timber Committee's annual market discussions which will be held on 28 September, 1999. Furthermore it provides readers with comprehensive analysis on recent developments in the forest and forest product sector in the ECE region as well as in other regions important for the ECE region trade.

The *Review* begins with an overview of the forest products markets, followed by a general appraisal of economic conditions which have directly or indirectly influenced ECE region markets. This economic chapter ends with an analysis of demands for wood and wood products and their substitutes from housing construction and related furniture and flooring demand. In-depth discussion of sector developments follows for roundwood, sawn softwood, sawn hardwood, wood-based panels, woodpulp, pulpwood and paper as well as tropical timber markets. A new regular chapter discusses markets for certified forest products – a new market sector covered in the annual Timber Committee discussions.

Four special chapters are included in this year's *Review*: "Estonia's forest products markets", "New Zealand's forest products markets", "Trade restrictions and their future" and "Forest products in the electronic marketplace." The chapter on Estonia's markets is the first of a new addition to the *Review*, that is, a focus on one ECE region country. The authors of the *Review* extend their gratitude to Mr. Erik Kosenkranius, Director, Estonian Department of Forestry, for authoring this enlightening chapter.

"New Zealand's forest products markets," is the first of a new annual series of chapters in the *Review* to highlight an important forest products trading country from outside the ECE region. As forest products are increasingly traded globally, competition for markets is no longer regional and is influenced greatly by countries which have fast-growing forest resources such as New Zealand. We thank Messrs. John Eyre and James Barton, New Zealand Ministry of Agriculture and Forestry, the authors of this special chapter.

"Trade restrictions and their future" was written by Dr. I. J. Bourke, Senior Forestry Officer, FAO Forestry Department. This timely chapter is an excellent introduction to the Timber Committee's special topic discussion at this year's session on "trade and the environment." We would like to express our gratitude to him for this comprehensive description of the tariff and non-tariff barriers affecting forest products trade worldwide.

The last special chapter, "Forest products in the electronic marketplace" describes the new marketing channel using the Internet and its prospects in the future.

Regular readers of the *Review* will notice that tropical timber is treated differently than in the past. Formerly tropical timber markets have been analysed in the hardwood chapter. Last year part of the tropical timber market was reported under a special chapter on "The effects of the Asian crisis on forest products markets in the ECE region" while the rest was treated under the hardwood chapter. This year the follow-up of the Asian crisis and discussion of the tropical timber markets are the subject of a new chapter written by Drs. Steve Johnson and Michael Adams of the International Tropical Timber Organisation. The authors of the *Review* appreciate this co-operative effort and the ITTO expertise.

The sources of information for this *Review* are mainly the responses to a new questionnaire sent out jointly by the ECE Timber Section, the FAO Forestry Department, EUROSTAT and ITTO. National correspondents from the 55 countries in the ECE region received the questionnaire and the tables and graphs result directly from their statistics. The secretariat acknowledges their important and timely work in supplying 1998 statistics following the first quarter of the year. It should be mentioned that some national correspondents had to make estimates for unavailable or partial statistics. We sincerely appreciate the extra effort made by some statisticians to supply advance data. All correspondents had the ability to revise former statistics for 1997 and thus there may be small differences in regional totals from the last *Review*.

In addition to the primary data, the *Review* is based on a wealth of secondary data obtained though trade journals, trade associations, annual reports, and other printed sources. In other words, many important statistics and ideas and other information came from trade journals and in such cases the secretariat does not claim originality. Attempts were made throughout the *Review* to appropriately cite sources of printed information and the authors did not intentionally leave out any sources. Readers' suggestions for additional sources of information are welcome. Sometimes we have quoted sources that are quoted by another journal or website — we would be especially grateful for direct links to some of these sources.

Increasingly valuable market information is available on the World Wide Web and we thank the generous contributors who upload information for international use. The Timber Section has established a Market Information System on the Timber Committee website and aside from publications like this *Review*, the site will be gradually developed with important links to more market information. Readers' suggestions of additional web sources are welcome.

Another important source of information comes from the individual contributors to the review who are listed separately. The authors sincerely appreciate their contributions and regret if anyone was unintentionally left off the list.

We apologise to those readers who relied on a paper copy, or on a version in French or Russian, in preparation of the Timber Committee. The document was completed late which delayed translation, printing, duplication and distribution. We hope that those delegates who have the electronic version in August 1999 find this method of distribution agreeable.

We would like your feedback on this *Review* and its improvements from previous reviews. A simple reader survey is attached at the end which can either be returned by fax or e-mail. An ongoing user survey has documented that changes to the *Review's* layout and content have been appreciated by readers, but additional improvements are possible.

The *Review* will be complemented in October 1999 by the *Timber Bulletin* issue No. 6, *Forest Products Markets in 1999 and Prospects for 2000*, which will contain the results of the Timber Committee's market discussion. All statistics collected in the new joint ECE/FAO/EUROSTAT/ITTO questionnaire are presented systematically in issue No. 2, *Forest Products Statistics, 1994-1998*. The other issues of the *Timber Bulletin* are listed at the end of the *Review*.

This publication is available on the Timber Committee website at: http://www.unece.org/trade/timber. Eventually the site will include the statistical database, TIMBER, used in the *Review*. Until then, the database is available from the secretariat.

Mr. Claude Huysbrechts, who was the Timber Section statistician for over 20 years, has retired. However his legacy lives on as the TIMBER database, which he created, was updated and used for this *Review*. Readers familiar with past *Reviews* will also notice that the graphics and tables in this year's Review have a new look as a result of more advanced desktop publishing techniques. The secretariat would like to express its gratitude to Messrs. Topi Sarpakunnas and Petteri Vuorinen, forest products marketing graduate students at University of Helsinki, who were interns with the Timber Section during the production of the *Review*. Our experience of engaging interns during the production of the publication, which has grown enormously in scope and time, has been extremely positive and prospective interns are encouraged to apply to work with the secretariat.

The *Review* is produced as a joint effort by the Geneva Timber Section and Ed Pepke led and coordinated the work. The individual chapters had the following principal authors: 1. Ed Pepke; 2. Kit Prins (drawing on the *Economic Survey of Europe* prepared by the Division of Economic Analysis of ECE); 3. Erik Kosenkranius (Estonia); 4. John Eyre and James Barton (New Zealand); 5. I.J. Bourke (FAO, Rome); 6. Ed Pepke; 7. Kit Prins; 8. Ed Pepke; 9. Ed Pepke; 10. Jorge Najera; 11. Kit Prins; 12. Ed Pepke; 13. Steve Johnson and Michael Adams. Messrs. Topi Sarpakunnas and Petteri Vuorinen produced all the graphics. Mr. Philippe LeMay-Boucher was responsible for preparation, formatting, integration and presentation of the text, tables and graphs. Mlle. Claire Pages produced the statistics tables. This manuscript was completed on 6 August 1999. More information may be obtained by contacting:

Ed Pepke
Forestry Officer–Marketing
Timber Section
UN/ECE Trade Division
Palais des Nations
CH - 1211 Geneva 10, Switzerland
Tel. + 41 22 917 2872 or 917 1234
Fax: + 41 22 917 00 41
info.timber@unece.org

CONTRIBUTORS TO THE PUBLICATION

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Jorge Casquilho, European Paper Industry Confederation

Centro Studi Industria Leggera (CSIL), Italy

Dave Darr, USDA Forest Service

Pierre-Marie Declos, Consultant

Katarina Ekberg, Swedish National Forestry Board

Jean Fayes, European Organisation of the Sawmill Industry

Keith Forsyth, LTS, International

Alfonso Froncillo, Federazione Nazionale dei Commercianti del Legno

Miroslav Gecovic, Slovakian Forest Research Institute

Bruce Hansen, USDA Forest Service

Hermann Huckert, Federal Ministry of Food, Agriculture & Forestry

Peter Hviid, Special, Danish Ministry of Environment and Energy

Peter Ince, USDA Forest Service, Forest Products Laboratory

Steve Johnson, International Tropical Timber Organisation

Pekka Kallio-Mannila, Finnish Forest Industries Federation

Hikojiro Katsuhisa, Japan Wood-Products Information and Research Center

Eric Kosenkranus, Estonian National Forestry Board

Giedrius Leliuga, Lithanian Center of Forest Economics

Mike Long, Ohio Division of Forestry

Bill Luppold, USDA Forest Service

Steve Lawser, Wood Component Manufacturers Association

Emil Mossiman, European Organisation of the Sawmill Industry

Antionio Leite, Direcao-Geral dasFlorestas, Portugal

John McLoughlin, Coillte/Irish Forestry Board

Heiner Ollmann, Federal Research Centre for Forestry and Forest Products

Mr. T. J. Peck, European Forest Institute

Monika Reinwand, European Organisation of the Sawnmill Industry

Dave Sanders, Council of Forest Industries, Canada

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Kenneth Skog, USDA Forest Service, Forest Products Laboratory

Henry Spelter, USDA Forest Service, Forest Products Laboratory

Jarkko Taskinen, North Karelia Polytechnic, Finland

Ilse van den Akker, European Panel Federation

Richard Vlosky, Louisiana State University

Petteri Vuorinen, University of Helsinki

Mikael Westin, Swedish Wood Exporters' Association

EXPLANATORY NOTES

"Apparent consumption" is calculated by adding a country's production to imports and subtracting exports. Since data are not universally available, the apparent consumption volumes are not adjusted for changes in the level of stocks.

"Net trade" is calculated as the balance of exports and imports and is shown as "+" for net exports, when exports exceed imports and is shown as "-" for net imports, when imports exceed exports. Trade data for fifteen European Union countries include intra-EU trade, which is often estimated by the countries.

The countries of the former USSR and other former centrally planned countries of central and eastern Europe are referred to collectively as "transition economies". The term "central and eastern Europe", used exclusively for presentational convenience, includes Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, The former Yugoslav Republic of Macedonia and Yugoslavia. Due to a change in statistical methods in producing this *Review*, the European totals do not include the Baltic Countries of Estonia, Latvia and Lithuania — this will be rectified in future *Timber Bulletins*.

The term "softwood" is used synonymously for "coniferous." "Hardwood" is used synonymously for terms "non-coniferous" or "broadleaved" wood.

When no data were available, the previous year's figure is used to calculate the regional total. As a convention in the analysis, one time period, for example first quarter of 1998, is compared to the analogous time period, continuing this example, the first quarter of 1997.

Statistics were received on the basis of joint ECE/FAO/EUROSTAT/ITTO questionnaires to official statistical contacts in the 55 countries in the ECE region in early 1999. Correspondents had the opportunity to update their 1997 statistics and thus slight changes may occur from statictics reported in last year's *Timber Bulletin*. The secretariat is grateful for correspondents diligence to provide actual statistics for 1998 and in the absence of formal statistics, their best estimates. Therefore all statistics for 1998 can be categorised as preliminary and subject to confirmation next year.

SYMBOLS AND ABBREVIATIONS USED

-	nil or negligible
...	not available
*	secretariat estimate or unofficial figure
$	United States dollar unless otherwise specified
C$	Canadian dollar
c.i.f.	customs + insurance + freight included
CIS	Commonwealth of Independent States
EU	European Union (currently 15 States)
f.a.s.	free alongside ship
FOB	free on board
GDP	gross domestic product
IMF	International Monetary Fund
m3	cubic metre (solid volume of roundwood or processed product)
m.t.	metric ton
MW/h	Megawatt per hour
N.A.	Not available
NIEs	Newly industralizing economies
OPEC	Organisation of Petroleum Exporting Countries
Q	Quarter
T	Trimester
USDA	United States Department of Agriculture
WWF	World Wide Fund for Nature

CHAPTER 1

OVERVIEW OF FOREST PRODUCTS MARKETS IN 1998 AND EARLY 1999

Highlights

- Total consumption of forest products in North American and European was at record levels in 1998.
- The mid-1998 economic crisis in Russia deepened the fall in consumption, production and trade.
- Central and eastern European countries exhibited strong signs of recovery of production and exports from early 1990s levels.
- The Asian economic crisis negatively affected ECE region exports in 1998, but some recovery was evident in mid 1999 as tropical timber markets restructured.
- Corporate restructuring and mergers are creating larger, multi-national corporations with greater market shares.
- Certified forest products are becoming more available through increasing forest certification activity, but consumer demand remains low.
- Oversupply of some forest products restrained prices in some commodities; simultaneously other product prices rose sharply with demand.

1.1 ECE region forest products markets developments in 1998 and 1999

Overall in the ECE region (Europe, North America and the CIS), forest products markets continued to improve in 1998. Total consumption of primary forest products (roundwood, sawnwood, wood-based panels and pulp and paper) rose in Europe and North America, but continued to fall in the Russian Federation (table 1.1.1).

European consumption of sawnwood, both hardwood and softwood, was at record levels. Paper and paperboard demand continued climbing beyond the jump in 1997. Overall wood-based panels consumption rose slightly on the strength of record particle board production. On lower volumes MDF consumption leapt by 20% with corresponding increases in production and imports.

The United States was the locomotive in world forest products markets in 1998. Housing construction grew to high levels in 1998 and was still going strong in early 1999. Not only do 1.6 million wooden houses consume tremendous quantities of sawn softwood, but they also spur demand for structural panels, such as OSB, and engineered wood products – these too were at new highs. Sawn softwood consumption reached record highs and although production rose, it still remained at levels below the late 1980s. Imports, primarily from Canada, reached new heights. With new housing the consumption of sawn hardwoods achieved record levels for furniture, millwork and flooring, including an additional 40% that went to packaging and other low-grade uses.

Canadian exports suffered from the Asian crisis but continued expanding to the United States. Production was at record levels in 1998 although not in all provinces.

European sawn softwood production rose and trade was active as Europe confirmed its net exporter status. Sawn hardwood consumption rose, showing signs of a new trend, and imports and exports were at record levels.

TABLE 1.1.1

Apparent consumption of sawnwood, wood-based panels and paper and paperboard in Europe, the Russian Federation and North America, 1995 to 1998

		Volume				*Change 1997 to 1998*	
	Million units	*1995*	*1996*	*1997*	*1998*	*Volume*	*Percent*
EUROPE							
Sawnwood	*m^3*	91.11	89.86	96.60	97.74	1.14	1.2
Wood-based panels	*m^3*	44.46	43.86	46.49	46.84	0.35	0.8
Paper and paperboard	*m.t.*	72.77	73.08	78.40	80.02	1.62	2.1
Total	*m^3 EQ* [a]	468.88	466.65	499.88	506.56	6.68	1.3
Change on previous year							
- Volume			-2.23	33.23			
- Percent			-0.5	7.1			
RUSSIAN FEDERATION							
Sawnwood [b]	*m^3*	20.64	17.33	15.95	14.31	-1.64	-10.3
Wood-based panels [c]	*m^3*	2.94	2.23	3.28	2.83	-0.45	-13.7
Paper and paperboard	*m.t.*	2.47	2.21	2.35	2.19	-0.16	-6.8
Total	*m^3 EQ* [a]	47.04	39.71	39.48	35.65	-3.83	-9.7
Change on previous year							
- Volume			-7.33	-0.23			
- Percent			-15.6	-0.6			
NORTH AMERICA							
Sawnwood [b]	*m^3*	153.31	160.58	166.49	172.06	5.57	3.3
Wood-based panels [c]	*m^3*	44.43	48.02	48.92	51.91	2.99	6.1
Paper and paperboard	*m^3*	96.62	90.66	85.38	87.47	2.09	2.4
Total	*m3 EQ* [a]	662.19	659.09	651.18	672.30	21.12	3.2
Change on previous year							
- Volume			-3.10	-7.91			
- Percent			-0.5	-1.2			

[a] Equivalent of wood in the rough.

[b] Excluding sleepers.

[c] Excluding veneer sheets.

The fall in Russian sawnwood production and trade was accelerated by the mid-1998 economic crisis. Nevertheless, one export-oriented sector, woodpulp, expanded production, as did the wood-based panels industry.

World pulp markets in 1998 were characterised by oversupply and weak prices. However production cutbacks, some quite severe, seem to have restored market balance and pulp prices were rising again in mid 1999.

Roundwood removals (production) in Europe rose to meet the demand for pulpwood (used for pulp and panel furnish) and sawnwood. Pulpwood trade was active: imports expanded strongly within and to Europe, primarily to Finland and Sweden. Imports were mainly from the Baltic Countries and Russia, while eucalyptus came from both inside and outside the region. Conversely, North America saw severe pulpwood oversupply with high pulpwood stocks and subsequent rationalisation (reduction) in the production of pulp, leading to steeply falling prices.

Tropical timber markets experienced an upheaval in 1997 and 1998 during the Asian economic crisis. This affected not only Asia and the other tropical producing regions, but also the ECE region exporters. Recession in Japan, the world's largest forest products importer (the majority tropical timber) had a domino effect on its trading partners. Economic weakness and associated currency devaluations resulted in decreased production and reduction of harvests. Some countries were able to gain export market growth in value-added products, such as furniture, which became affordable with the devaluations. In late 1998 and early 1999 some tropical timber markets were recovering.

Certified forest products are becoming more available, primarily in Europe, but still remain a small part of the forest products trade. Some forests in the ECE region have been certified by the Forestry Stewardship Council, the Sustainable Forestry Initiative and various national schemes. The new Pan European Forest Certification system has the possibility of doubling the area of forests certified in Europe. The majority of the worldwide demand for certified forest products comes from within the ECE region, mainly from Europe and principally from net importing countries. At the present time producers of certified products seek advantages other than immediate profit, such as improved corporate environmental image.

1.2 Current trends in the forest and forest industries sector

In the ECE region the production capacity is being rationalised to the demand, both intra-regional and outside the region. Sawnwood is being produced in fewer but larger mills. Plywood production has changed technology to adapt to smaller peeler logs and moved to where resource exists. Plywood faces increasing competition from OSB in structural uses and MDF in furniture and had lower production in North America in 1998. Pulp manufacture draws resources worldwide and is increasingly dependent on recycled fibre. With advances in technology the difference is becoming less between a pulplog, a sawlog and a veneer log.

There are important changes underway in the structure and location of manufacturing capacity. In some regions, capacity has been closed, with the intention of removing structural overcapacity. This has been done not only to prevent oversupply and maintain prices but more importantly to gain economic efficiencies of scale and to implement new manufacturing technologies. Closures of British Columbia, Canada sawmills, southeastern United States pulpmills, Swedish sawmills and European and North American panel mills took place in 1998. However at the same time, very large mills are being built or have already come on-stream: examples of this are large sawmills in southern Sweden, France and the *neue Bundesländer* of Germany, as well as OSB and MDF capacity which continues to expand in the ECE region and worldwide. For pulp, new capacity is mostly outside the region, notably where there is a tropical plantation resource.

Region-wide there is no shortage of supply of wood fibre in the forests. However locally there may be species, size or quality problems. And region-wide the costs for harvesting and transportation and transformation may render certain timber uneconomical. "Pulpwood" includes residues and chips and an increasing share of pulp furnish is coming from "urban forests", i.e. from recovered paper and paperboard. This has had ramifications on other sectors of the industry, for example sawmill chip constraints, as well as effects on forest management. In North America substitution of wheat straw furnish for wood fibre in the manufacture of particle board is occurring.

Engineered wood products which are produced by reducing wood to its basic components, for example down to the wood fibre in the case of MDF, are rebuilt into functional members using combinations of fibres, flakes, veneers and products. The question becomes, "What is solid wood?" as these new products replace traditional sawnwood used in construction and furniture. Substitution of modern wood components for traditional wood usage, such as with wooden I-beams for sawnwood joists and rafters is occurring. Substitution by engineered wood products is easier to accept than the loss of market share to competing non-wood materials, like plastic window frames and steel doors. Considerable information can be found in the newly published study from the

FAO/ECE Team of Public Relations Specialists in the Forest and Forest Industries Sector[1].

The "centres" of manufacturing are losing political identity as corporations merge, consolidate and form national and international marketing alliances in order to gain strategic advantage. Increasingly the questions of location of production, source of raw material, location of decision taking and distribution of economic benefit must each now be treated separately. In this sense, the forest products sector shows the same characteristics as many other sectors.

For example, in the sawnwood sector is it true to say that 25% of Finnish production occurs outside of Finland? Is it a *German* sawmill when by being located on the Baltic Sea (in Germany) it can import logs from around the Baltic Sea and then export most of its production out of Germany? There are more than difficulties in semantics with the ongoing globalisation of the forest industries – the internationalisation of forest products production is gradually blurring regional identities too. While these structural changes in the forest products industry are not treated *per se* in this *Review*, they are having multiple and significant effects on the markets.

The true effects of world trade are just appearing with some developed and developing countries welcoming free trade, while others (and some of the same ones) attempt to protect domestic production through tariff and non-tariff barriers. (A special chapter is devoted to "Forest products trade barriers".)

With freer trade and increasing globalisation, smaller countries with adequate and available resources can become world players. Estonia is an example of a country that has benefited from open trade policies. (A special chapter is included on "Forest products markets in Estonia".) Outside of the ECE region there are export-oriented countries which depend heavily on open markets, for example New Zealand. (A special chapter is dedicated to "Forest products markets in New Zealand.")

The Kosovo crisis in 1999 is too recent to have been manifest in forest products statistics. However there have still been some immediate consequences for the region's forest products markets: production and trade halted in Kosovo and Yugoslavia, western buyers sought alternative sources in the surrounding region, and all forest products transportation on the Danube River was disrupted.

The electronic business channel using the WWW is expanding and is already changing the way forest products are traded. Currently the Internet is mainly a "yellow pages" type of advertising for most countries in the forest products industry. However sawnwood is now traded at some sites which specialise in either hardwood or softwood. (A special chapter focuses on electronic business channels.)

With the onset of European Monetary Union (EMU) in 1999 the euro became the currency of intra-European Union (EU) trade for those countries who joined. In 1999 trade within member countries of the EU was conducted in national currencies. However companies in non-EMU countries, for example Sweden and the United Kingdom, could chose when to trade in euros. The effects of the euro on forest products trade may be more evident next year.

Europe may be seeing the emergence of a Baltic region grouping of economies with strong forest industries based on a forest resource with roughly similar ecological characteristics. This region would include not only Finland and Sweden, Estonia, Latvia and Lithuania, but also Poland, Denmark and northeastern Germany. In 1998, the performance of this group seems to have been better than that of other parts of Europe (in as much as the data are available, which is not the case for sub-national groupings).

1.3 Timber Committee forecasts

At its September 1998 session the Timber Committee forecasts were cautious due to the ongoing Asian and Russian economic crisis. The European apparent consumption forecasts for 1998 and 1999 were both exceeded by the 1998 consumption total reported in Table 1.1.1 for sawnwood, wood-based panels and roundwood. In North America forecasts were in the right direction for 1998. Forecasts for the CIS countries in mid 1998 were obviously difficult due to the ongoing economic instability.

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[1] *The Competitive Climate for Wood Products and Paper Packaging: the Factors Causing Substitution with Emphasis on Environmental Promotions*. Edited by Mr. John Burrows and Ms. Berit Sanness, 1999.

CHAPTER 2

ECONOMIC FACTORS AFFECTING FOREST PRODUCTS MARKETS

Highlights

- The year 1998 saw continued strength in the North American economy, but weak growth in Europe.
- The United States housing market was at high levels throughout 1998 and early 1999.
- In Europe residential construction was sluggish, but renovation and maintenance continued to expand steadily.
- The outlook in summer 1999 is for continued growth in the United States and for weak expansion in Europe.
- Japan has been in recession, but there are signs of recovery, including for the construction sector.
- In 1998 economic performance deteriorated in many transition economies: external shocks, including the Kosovo conflict, have highlighted the fragility of many of these economies. Most countries expect poor or negative growth in 1999.

The analysis below is taken from the *Economic Survey for Europe*, Number 2 of 1999, prepared by the Economic Analysis Division of the secretariat of the Economic Commission for Europe, Geneva.

2.1. General economic developments

(i) Market economies: economic developments in 1998 and early 1999, output and demand

World output growth slowed down sharply in the course of 1998 under the cumulative impact of the financial and currency crises in Asia, Russia and Brazil. For the year as a whole, real GDP rose by only 2.5%, down from 4.2% in 1997.[1] This was the smallest annual increase in world output since 1991.

In *western Europe*, the cyclical slowdown in the second half of 1998 reflected in the main the weakening of industrial activity in response to falling export demand. In fact, manufacturing output fell in the final quarter of 1998 by some 1.25%, compared with the preceding quarter, and was only about 1% above its level in the final quarter of 1997. Real GDP rose by only 0.3% over the same period, in both the area, and in western Europe as a whole.

Preliminary estimates suggest that real GDP in the euro area increased by 0.4% in the first quarter of 1999 and was only 1.8% higher than in the first quarter of 1998 (chart 2.1.1). For western Europe as a whole, real GDP rose by slightly less, reflecting the stagnation of aggregate output in the United Kingdom. Industrial confidence remains relatively depressed, although it has improved slightly in recent months. In contrast, consumer confidence, which is at relatively high levels, deteriorated slightly until May 1999. In principle, low real interest rates should encourage spending on interest-sensitive expenditure items and this should have supported private consumption and fixed investment in the first quarter of 1999. Private consumption is also being supported by the rise in aggregate incomes associated with further gains in employment and average earnings. Given the weak trade links with Yugoslavia and other south-east European countries, the Kosovo conflict has had, in general, little impact on recent economic developments. However there have been significant sectoral impacts in Greece, Italy and Turkey, especially on the tourism industry.

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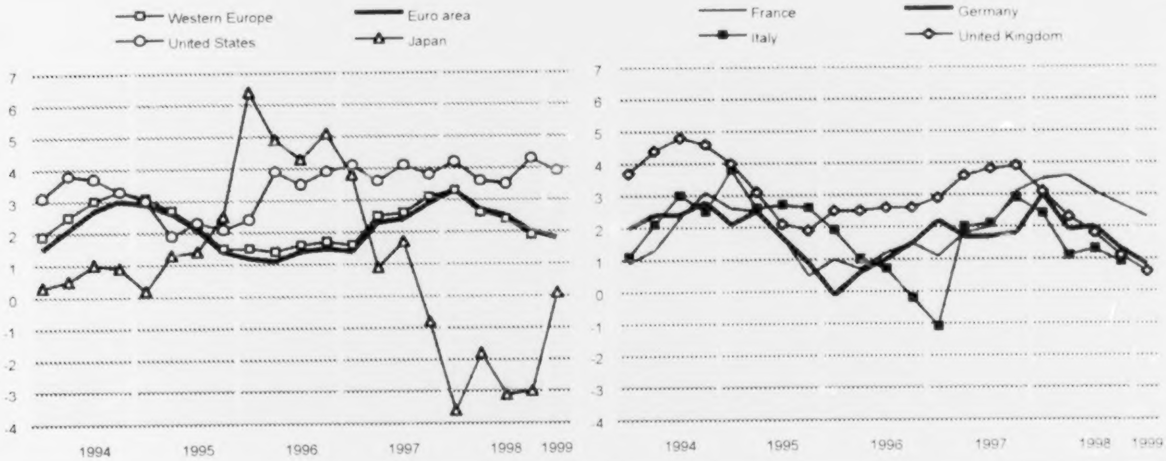
[1] IMF, *World Economic Outlook* (Washington, D.C.), April 1999.

GRAPH 2.1.1

Changes in real GDP, 1994 QI-1999 QI

(Percentage change over same quarter of preceding year)



Source: National statistics.

Note: Data are seasonally adjusted. Euro area excludes Ireland and Luxembourg. Western Europe: euro area plus Denmark, Norway, Sweden, Switzerland and the United Kingdom.

In the western European labour markets, there was a slight fall in the number of persons unemployed in 1998, with a fall in the standardized unemployment rate from 9.6% to 9.1% between January and December 1998. In the European Union, the unemployment rate was 9.6% in April compared with 9.7% in December 1998. Available data suggest that this tendency has continued in early 1999.

At the time of writing, national accounts data for the first quarter of 1999 are available for only a few countries. In *France*, real GDP rose by 3.2% in 1998, the largest increase in this decade and a reflection of robust private consumption expenditures and an upturn in business fixed investment. However in the first quarter of 1999 real GDP rose only by a modest 0.3%. The corporate sector increased expenditures on machinery and equipment. Households, encouraged by low mortgage rates, invested more in residential buildings, which stimulated the construction sector (and presumably demand for forest products).

In *Germany*, the adverse trade effects of the crises in Asia, Russia and Latin America were increasingly felt in the second half of 1998. After falling by 0.1% between the third and final quarters of 1998, economic activity picked up slightly in the first quarter of 1999, real GDP rising by 0.4%.

In *Italy* national accounts data for the first quarter of 1999 were not available at the time of writing the *Survey*. Short-term indicators point to the continuing weakness of domestic and foreign demand. Growth expectations for 1999 have been scaled back and current forecasts point, at best, to an increase in real GDP of 1.5%.

In the *United Kingdom* real GDP stagnated in the first quarter of 1999, when there was an increase over the previous quarter of only 0.1%. It is now generally expected, however, that a recession will be avoided. Differences in the development of different sectors remain marked. The manufacturing sector moved into recession in the first quarter of 1999, output falling for the second consecutive quarter, while construction activity remained sluggish.

TABLE 2.1.1

Real GDP in the developed market economies, 1996 to 1999

(Percentage change over previous year)

	1996	*1997*	*1998*	*1999*
Western Europe	1.9	2.7	2.6	1.8
4 Major countries	1.2	2.1	2.2	1.5
France [b]	1.1	2.0	3.2	2.3
Germany [b]	0.8	1.8	2.3	1.5
Italy	0.9	1.5	1.4	1.5
United Kingdom [b]	2.6	3.5	2.1	0.7
17 Smaller countries	3.1	3.9	3.4	2.4
Austria	2.0	2.5	3.3	2.2
Belgium [b]	0.9	3.2	2.9	2.0
Cyprus	2.0	2.5	5.0	4.0
Denmark [b]	3.3	3.1	2.9	1.6
Finland [b]	4.1	5.5	4.7	3.0
Greece	2.4	3.2	3.5	3.0
Iceland	5.6	5.4	5.0	5.0
Ireland	7.4	9.8	8.5	6.5
Israel	4.7	2.7	2.0	1.7
Luxembourg	3.0	4.7	5.7	3.3
Malta	3.8	4.4	7.6	7.5
Netherlands	3.1	3.6	3.7	2.2
Norway [b]	5.5	3.4	2.1	1.0
Portugal	3.2	3.7	3.9	3.0
Spain	2.4	3.5	3.8	3.3
Sweden	1.3	1.8	2.9	2.0
Switzerland	0.3	1.7	2.1	1.3
Turkey	7.0	7.5	2.8	1.4
North America	3.3	3.9	3.8	3.4
Canada [b]	1.7	4.0	3.1	2.8
United States	3.4	3.9	3.9	3.5
Total above	2.6	3.3	3.2	2.6
Japan	5.0	1.4	-2.8	-1.4
Total above, *including Japan*	3.0	3.0	2.3	2.0
Memorandum items:				
European Union	1.6	2.5	2.6	1.9
Euro area	1.4	2.3	2.7	2.1

Source: National statistics and national economic reports.

Note: All aggregates exclude Israel. Growth rates of regional aggregates have been calculated as weighted averages of growth rates in individual countries. Weights were derived from 1991 GDP data converted from national currency units into dollars using purchasing power parities.

[a] Forecasts.

[b] Data corresponds to new SNA93 or ESA95 definitions.

In the *United States* the rate of economic expansion has remained high over the first five months of 1999. Manufacturing has gained new momentum: between March and May, output rose at a steady rate of 0.4% a month, equivalent to an annual rate of nearly 5%. Construction activity continued to grow at a brisk rate against a background of favourable mortgage rates and strong home sales. Consumer confidence was strong, rising in each of the six months ending in May 1999, the longest continuous upturn in the 32 years for which this index has been compiled. Real GDP rose by 1% in the first quarter compared with 1.5% in the previous quarter.

In *Canada* the economy maintained the high momentum of the final months of 1998, mainly under the influence of rising exports to the United States, to which Canada ships more than three quarters of its exports (including large volumes of forest products). Real GDP in the first quarter of 1999 was 1% higher than in the preceding quarter.

Outside the ECE region, in *Japan* there was a strong and unexpected upturn in real GDP by 1.9% in the first quarter of 1999, compared with the preceding quarter. This followed five consecutive quarters during which aggregate output fell by a cumulative 4%. The rebound reflects in the main the impact of last year's fiscal packages on public investment and an increase in private consumption expenditures. The strong appreciation of the yen against the dollar, which started in autumn 1998 and which depressed export growth, was arrested in early 1999 and has since been partly reversed. There are still widespread doubts that the economy has returned to a sustainable growth path.

In the *other Asian economies* most affected by the financial crisis of 1997, the deep recession in 1998 appears to have bottomed out, supported by an easing of macroeconomic policies. The general feature is a return to positive output growth rates in 1999. Relatively robust annual output growth of some 4.5% is currently forecast for the Republic of Korea. More moderate rates, within a range of 0.5-2%, are expected for Malaysia, the Philippines and Thailand. Only in Indonesia is there likely to be another year of falling output. The background to this improved performance is the stabilization of financial markets and progress, albeit to varying degrees, in financial sector reform.

In *China* the rate of economic expansion will slow in 1999. For the year as a whole real GDP is still expected to increase by some 6.5-7%, down from nearly 8% in 1998. Economic activity has been supported since the second half of 1998 by additional public infrastructure investments and an easing of monetary policy.

In *Latin America* a sharp slowdown in capital inflows and falling commodity prices were the main factors behind the pronounced deceleration in economic growth in 1998. Real GDP rose by 2.3% compared with 5.2% in 1997. Current forecasts are for a decline in real GDP by some 0.5% in 1999, which would be the worst outcome in the current decade. Nevertheless, prospects have improved since the floating of the Brazilian real in mid-January 1999. At that time a much deeper recession was expected, notably in Brazil itself, which accounts for some 40% of total GDP produced in the region.

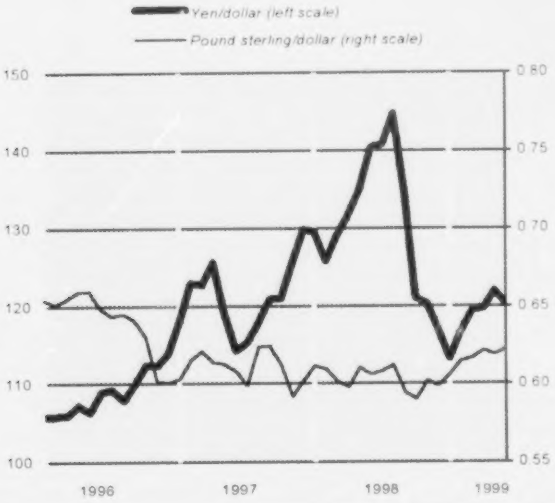
(ii) Monetary conditions

The new European single currency was introduced in 15 countries on 1 January 1999.

Within the *euro area* monetary conditions continued to ease in the second quarter of 1999, reflecting the combined impact of the lowering of official interest rates by the European Central Bank (ECB) on 8 April and the continued depreciation of the euro. As a result, nominal short-term interest rates in the money market also declined: in mid-June, they stood at 2.6%, their lowest level in this decade. The average real short-term interest rate[2] fell to about 1.5% in April (the latest month for which inflation data are available), which is more than one percentage point below the corresponding rate in the United States.

GRAPH 2.1.2

Bilateral exchange rates, January 1996 to June 1999
(Monthly averages)



Source: United States Federal Reserve, 1999.

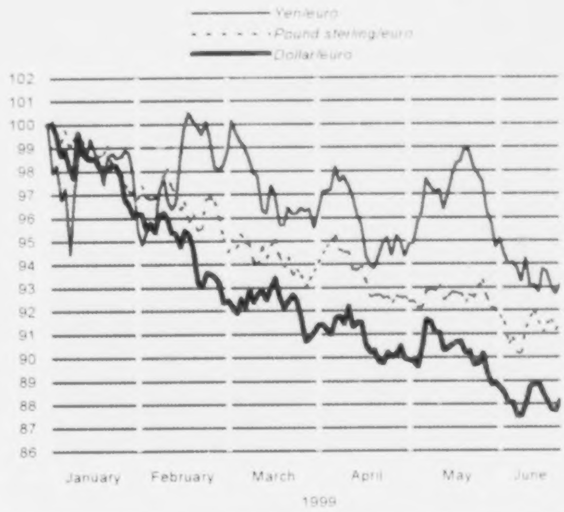
Note: The figures for June 1999 are the average rates of the first half of the month.

Outside the euro area, in the *United Kingdom* the process of monetary easing, which began in the final quarter of 1998, continued. Official interest rates have now fallen by 2.5 percentage points since June 1998, when monetary policy was last tightened to avoid overheating.

In the *United States* monetary policy has been left unchanged so far in 1999. Given the continued buoyancy of the economy, tight labour markets and associated concerns about the risk of mounting inflationary pressures, a tightening of monetary policy in the months ahead is now considered probable by many observers. Against this background, short-term interest rates, which had been rather stable at around 4.9% in the months before, rose slightly to 5.1% in early June.

GRAPH 2.1.3

Euro reference rates, January 1999-June 1999
(Indices, 4 January 1999 = 100)



Source: European Central Bank, 1999.

Note: Daily rates from 4 January to 15 June 1999.

(iii) Exchange rates

In the *foreign exchange markets* the euro's depreciation against the dollar and pound sterling has continued (graph 2.1.3). In mid-June, the euro had depreciated by nearly 12% against the dollar and 8.5% against the pound since early January of this year. A striking feature of what has been the high volatility of the yen-euro exchange rate without any discernible. It is useful to recall that there have been previous episodes during which the dollar appreciated strongly against the deutsche mark and other currencies in the old ERM, for example, over the period from late 1996 to mid-1997. The Swedish crown is an important currency for forest products markets which has not entered the euro. The crown fell against the euro currencies in the run-up period to the introduction of the euro, but then recovered its previous level. Since February 1999, the crown/euro exchange rate has remained roughly stable, just under 9 SEK/Euro.

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[2] i.e. nominal interest rates, adjusted for inflation, (based on national definitions of consumer price indices).

(iv) Commodity and energy prices

There was a generally sharp fall in *international commodity prices*[3] in 1998 which reflected to a large degree the adverse effects of the Asian crisis on demand. Price developments for the main commodity groups, however, have diverged during the first five months of 1999. There was a marked recovery in petroleum prices which contrasts with the continued slide in the prices of food products. Industrial raw material prices have been fairly stable at a low level since the final quarter of 1998. Commodity prices in general will continue to be restrained by the existing large margins of excess capacity. Recent price developments have been influenced by output cuts (e.g. oil and copper) or expectations of a recovery in demand later in the year.

In view of the implications of changes in oil price for wood energy markets, it is worth examining trends for world oil prices, and their underlying factors. The global cuts in oil production (for a period of one year) agreed by OPEC in March 1999 reflect an attempt to arrest and reverse the fall in oil prices and to increase revenues. Non-OPEC countries, such as Mexico, Norway and Oman, have also announced that they will curtail oil production. Available data and industry estimates indicate that so far there has been a high degree of compliance with the agreed cutbacks. Crude oil prices, on average, rose by 50% between February and May 1999, but they were still below their level at the beginning of 1998. In early June, however, there was some downward pressure on prices. In view of the expected modest growth in world petroleum consumption (some 1¼%) in 1999 it is clear that maintaining these higher oil prices will depend, at least in the short run, on effective control of supply. Non-oil commodity prices are expected to recover somewhat from their depressed levels due to increasing demand, consistant with the strengthening of economic activity (notably in Asian emerging markets) in the second half of the year.

(v) Market economies: situation in summer 1999 and short-term outlook

In the first months of 1999 the real global economy has remained full of contrasts. The *United States* economy has continued to expand at a robust rate. In western Europe, the marked cyclical slowdown in the second half of 1998 has been arrested but as yet there are no signs of a strengthening in the forces for economic growth.

Real GDP in *western Europe* is still forecast to increase by some 2% in 1999, which contrasts with the significantly stronger annual growth rate of more than 3% expected for the United States.

These forecasts embody the assumption that forces for growth will strengthen in western Europe but weaken in the United States in the second half of this year. Such tendencies, however, are not yet discernible in the currently available short-term economic indicators for the first four or five months of 1999.

In Germany, the largest west European economy, business confidence (as measured by the IFO business climate index) rose again in May following a fall in April. But overall confidence has fallen to low levels since the Russian crisis of last year, and the May figure is only slightly higher than the recent trough in February.

There are, nevertheless, some factors which could lead to a pick-up in economic growth in western Europe later on in the year. In the euro area, the monetary impulses which are now in the pipeline will stimulate domestic demand, although the effects of lower short-term interest rates could be partly offset by a rise in long-term interest rates. In addition, the depreciation of the euro has improved price competitiveness which should strengthen the growth of net exports. Fiscal policy, in the aggregate, will be neutral in its effect on economic activity in 1999. In the United Kingdom, the resolute easing of monetary policy and the slightly expansionary stance of fiscal policy can be expected to offset the restraining effects on exports of the strong pound.

Support for this scenario is also provided by the increasing evidence that the economic situation in the Asian emerging markets most directly affected by the financial crisis of 1997 has been improving. Stabilization and growth in Asia should, of course, stimulate western European exports to the region.

There remain, however, considerable downside risks. These include the weakness of the Japanese economy, the vulnerability of emerging markets to new financial shocks, the sustainability of the rise in the United States current account deficit. Another concern is the level of equity prices in many industrialized countries, notably the United States, which appear to be quite excessive on the basis of historical valuation criteria.

In the United States the continued strength of the economy and the absence of any significant inflationary pressures remain striking. Private household spending has been fuelled by expectations of further increases in already high asset prices, which is not sustainable. Moreover, the pool of available labour resources has now been virtually exhausted. At this very mature stage of the business cycle productivity gains will be increasingly less able to offset labour cost pressures, which must inevitably mount if the economy remains as strong as it is at present. Overall, the existence of significant domestic and external imbalances calls for a pre-emptive tightening of monetary policy to avoid a hard landing.

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[3] These indices include some series for forest products. It would be interesting to investigate the relation between prices for forest products and for internationally commodities, and to what extent the two are in phase.

In *Japan* the growth effects of a succession of fiscal stimuli have masked a continued depression in the spending propensity of the private sector. In contrast, there is increasing evidence of strengthening of growth factors in the Asian emerging markets most directly affected by the financial crisis of 1997, although only relatively modest output growth is expected in 1999.

In *Latin America* the adjustment to the reduced inflow of foreign capital and the adverse effects of the recession in Brazil has been depressing activity levels.

Against this background, the volume growth of world merchandise trade is expected to remain subdued in 1999. Forecasts are for an increase of only 3.5%, the same rate as in 1998. This is well below the average increase between 1990 and 1997. These prospects for moderate growth in world output and trade, however, are still surrounded by considerable downside risks.

Current forecasts are for a stabilization of world output growth at a rate of 2.5% in 1999 followed by a strengthening to some 3.5% in 2000.

2.2 Central and Eastern Europe and the CIS

(i) Developments in 1998 and early 1999

During the early months of 1999, economic performance deteriorated in many of the ECE transition economies. The most visible evidence of this was the weakening of output and export performance which was noticeable throughout the whole region. The weakening of economic activity had a negative impact on the situation in the labour markets causing further increases in unemployment. While inflation rates continued to fall in most transition economies, in some CIS countries there were painful setbacks, fuelled in most cases by depreciating exchange rates. The international trade of the transition economies was in general weak and in some areas (in particular Russian imports and intra-CIS trade in general) there were especially large falls: the Russian crisis practically eliminated some of the trade flows in this region. The current account balances of most transition economies have also deteriorated suggesting that balance of payments constraints may become a serious bottleneck for some of the countries in the region.

The worsening of the economic situation in the transition economies – which in fact started in mid-1998 – was triggered by a series of external shocks, the latest being the Kosovo conflict. Their aggregate and multiplier effects have resulted in an unexpectedly large and widespread negative impact on the ECE transition economies. For example, the rate of growth of aggregate GDP in eastern Europe in 1998 was the lowest since 1993 (table 2.2.1). These developments highlight once again the general fragility of most of the transition economies and their vulnerability to external disturbances.

Basically the same external factors that caused the setback in the ECE transition economies in the second half of 1998 continued to further worsen their output performance in the opening months of 1999: weak global demand (caused by the global financial turmoil that followed the Asian crisis), the large fall in Russian imports in the aftermath of the August financial collapse and the weakening of import demand in western Europe. The outbreak of the Kosovo conflict and the escalation of war-related damage was another major external shock for many of the ECE transition economies, especially those in south-east Europe.

Among the *central European transition economies*, in the first quarter of 1999 growth remained relatively strong only in Hungary. Although the growth of industrial output decelerated somewhat, it was still sufficient to preserve a healthy rate of recovery in the economy as a whole. The growth of domestic demand also slowed a little from the very high rates in 1998 but it still provided an important support to economic activity.

Sluggish output, and in some cases recessionary trends, prevailed in the rest of the central European transition economies. Poland has been experiencing its worst economic performance since 1994. Preliminary estimates suggest that quarterly GDP grew only marginally in the first quarter and even if it picks up later in the year it is highly unlikely that Polish growth performance in 1999 will match the record of the last five years. In the Czech Republic, which has been in recession since the beginning of 1998, both GDP and industrial output fell sharply in the first quarter of 1999. Although a turnaround is widely expected in the course of 1999, recession will probably prevail for the year as a whole.

The new *Slovak* government has been implementing a major fiscal adjustment aimed at restoring macroeconomic equilibrium. Overall this has resulted in a dampening of economic growth. In the first quarter of 1999 quarterly GDP increased by a meagre 1.8%, following a 0.5% increase in the fourth quarter of 1998.

The economic situation in the *south-east European transition economies* was seriously destabilized by the conflict in Yugoslavia. The economies of most of these countries were already in a precarious state prior to the outbreak of the conflict. The huge losses suffered by all of the south-east European transition economies as a result of the conflict have resulted in a critical setback for this group of countries which threatens to escalate into a major economic crisis for the whole region.

The economies of south-east Europe continue to encounter serious macroeconomic problems. Romania has been facing serious macroeconomic imbalances and has been in a state of a deep recession since 1997. Its most acute problem in 1999 is the servicing of its foreign debt, which will be impossible without substantial additional assistance from the international financial institutions.

The *Baltic States* were among the worst affected by the Russian crisis. Economic activity began to weaken already in the second half of 1998 and became even more pronounced in the first quarter of 1999. In Estonia the preliminary estimates indicate that quarterly GDP fell by almost 6% year-on-year, and recessionary trends were also observable in Latvia and Lithuania. In all three countries quarterly industrial output declined very steeply – in Estonia and Latvia at double-digit rates.

The *Russian* economy is in a precarious state after the major financial collapse in 1998. The crisis culminated in August, when the persistent loss of investor confidence led to a massive outflow of capital from Russia, the collapse of the exchange rate regime and default on domestic public debt. After the Bank of Russia allowed the rouble to float in August 1998, its exchange rate fell sharply from some 6.2 roubles per dollar to 16.1 by the end of September. The nominal exchange rate was around 24.5 roubles per dollar in mid-June 1999.

Since the August financial collapse, Russian economic performance has been mixed. In the second half of the year, and especially in the fourth quarter, domestic demand weakened significantly as real incomes fell sharply due to the upsurge in inflation following the currency collapse. At the same time, some local producers apparently benefited from the devaluation: exporters gained in competitiveness while some domestic sales picked up thanks to devaluation-induced import substitution. The increase in the price of oil (a major Russian export product) since the beginning of 1999 has also had a favorable effect on Russian economic performance. The combination of these factors produced a deceleration in the rate of decline of industrial output already in the fourth quarter of 1998. In the first quarter of 1999 this decline was arrested and in March-April modest year-on-year growth of monthly industrial output resumed. Nevertheless, overall economic activity remained weak with GDP declining by 3.7% in the first quarter of 1999.

Private domestic demand in Russia remained extremely subdued in the first months of 1999. The main factor behind this development was the considerable erosion of real incomes after the August financial crash. With no signs of reversal, the crisis is likely to have a long-lasting negative impact on the level of real incomes in Russia.

The Russian crisis caused a considerable deterioration in the economic performance of most of the *other CIS countries*. On average, economic activity in the CIS continued to weaken in the first quarter of 1999: in all countries except Turkmenistan, rates of GDP growth in the first quarter were lower than the annual rates in 1998. Poor export performance, and in particular, an abrupt fall in the intra-CIS exports of many CIS countries (of which Russia accounts for a significant share) appear to have been one of the main factors behind this negative outcome. Apart from the direct impact of depressed Russian import demand, output and exports in many CIS countries were hit by the continuing weakness of some commodity prices which in turn lowered export revenues.

Rates of inflation continued to fall in most transition economies in early 1999. As in 1998, the deceleration was widespread and rapid. Given the intensified competition for export markets, the general weakness in import unit values for manufactured goods in dollar terms probably continued also in early 1999; however, international commodity prices (also in dollars) in April 1999 were nearly one fifth above their levels in December 1998.

TABLE 2.2.1

GDP growth rates for the ECE transition economies, 1996 to 1999

(Rates of change, %)

	1996	*1997*	*1998*	*1999*
Eastern Europe	3.8	2.3	1.5	2.2
Albania	9.1	-7.0	8*	5-6
Bosnia and Herzegovina[a]	..	..	..	18
Bulgaria	-10.1	-6.9	3.5	2
Croatia	6.0	6.5	2.7	1.5-2
Czech Republic	3.9	1.0	-2.7	-0.8
Hungary	1.3	4.6	5.1	4-5
Poland	6.0	6.9	4.8	4-4.5
Romania	3.9	-6.9	-7.3	-2
Slovakia	6.6	6.5	4.4	3
Slovenia	3.5	4.6	3.9	4
The former Yugoslav Republic of Macedonia	0.8	1.5	2.9	-8
Yugoslavia[b]	5.9	7.4	2.6	..
Baltic States	4.1	8.4	4.4	3
Estonia	3.9	10.6	4.0	2.0-2
Latvia	3.3	8.6	3.6	2
Lithuania	4.7	7.3	5.1	4
CIS	-3.4	1.0	-2.8	0.1
Armenia	5.9	3.1	7.2	4
Azerbaijan	1.3	5.8	10.0	6
Belarus	2.8	11.4	8.3	4-6
Georgia	11.0	11.3	2.9	4
Kazakhstan	0.5	1.7	-2.5	-1.5
Kyrgyzstan	7.1	9.9	1.8	2.8
Republic of Moldova[c]	-7.8	1.6	-8.6	-5
Russian Federation	-3.5	0.8	-4.6	(-1-0)
Tajikistan	-16.7	1.7	5.3	3
Turkmenistan	6.7	-11.4	5.0	10
Ukraine	-10.0	-3.2	-1.7	-1
Uzbekistan	1.7	5.2	4.4	4.4
Total above	-0.8	1.6	-1.1	1.0
Memorandum items:				
CETE-5	4.7	5.0	3.1	3.1
SETE-7	1.9	-3.9	-2.6	-0.6
Former GDR	3.2	1.7	2.0	

Source: National statistics, CIS Statistical Committee, direct communications from national statistical offices to UN/ECE secretariat (IMF and World Bank data for Albania), 1999.

Note: Aggregates are UN/ECE secretariat calculations, using PPPs obtained from the 1996 European Comparison Programme. Aggregates shown are *Eastern Europe* (the 12 countries below that line), with sub-aggregates *CETE-5* (central European transition economies: Czech Republic, Hungary, Poland, Slovakia, Slovenia) and *SETE-7* (south European transition economies: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, The former Yugoslav Republic of Macedonia and Yugoslavia), *Baltic States* (Estonia, Latvia, Lithuania), *CIS* (12 member countries of the Commonwealth of Independent States), and *total transition economies*. The 1999 regional aggregates exclude Bosnia and Herzegovina and Yugoslavia.

[a] Data reported by the Statistical Office of the Federation; these exclude the area of Republika Srpska.

[b] Gross material product instead of GDP.

[c] Excluding Transdniestria.

As a result of the general economic slowdown and the Russian crisis, *unemployment* started to increase in most transition economies in the second half of 1998. In countries, where the external demand shock was amplified by deepening internal problems there was an unexpectedly sharp upsurge in the rate of joblessness in the fourth quarter of the year. The total number of people registered as unemployed in the transition economies as a whole reached 20 million people at the end of March (some 7.6 million in eastern Europe and the Baltic States and 12.4 million in the CIS countries), the highest level since records began in the early 1990s.

With regard to *international trade*, in the first three months of 1999 there was a fall in the value of exports from eastern Europe and the Baltic economies. The virtual paralysis of the CIS market, the weakening of intraregional demand, the increasingly competitive conditions in western import demand and the effect of lower international prices were the main factors behind the fall of some 4% in the dollar value of their exports.

However, the continuing paralysis of the CIS market in the early months of 1999 has hampered the region's exports as business confidence in this market has diminished and few new trade contracts, including those on a state-to-state basis, have been concluded. The indirect effects, especially for trade among the east European and Baltic Countries, were also considerable with many individual countries attempting to strengthen protectionist measures and support the substitution of locally-produced goods for imports. As a result, in January-March 1999 exports to Russia and to the rest of the CIS plunged by 50-70% (as compared with the same period of 1998), while trade among the east European and Baltic States shrank by 10-15% in value. East European and Baltic exports grew in trade with the developed market economies, but the rise of some 7% was less than half the rate in 1998.

A recovery of east European and Baltic Countries' trade is not very likely in the short run as external demand, especially in the west, seems to be flat and within the region demand is weakening. The Kosovo conflict has added another major disturbance to foreign trade flows, not only for the south-east European countries but for all the European transition economies. Following closely on the collapse of the CIS market, this new shock is likely to reinforce and prolong the negative effects on trade which were already observable before the conflict.

During the first quarter of 1999 the dollar value of *total merchandise exports* from the CIS countries fell by 16% and *imports* by 39%. Total imports also fell across the board, except in Azerbaijan and Turkmenistan. The CIS area's *merchandise trade* surplus showed a significant improvement over the first quarter of 1998, increasing from $2.6 billion to $7.5 billion, due to a very large surplus in Russia. The first quarter trade performance did not significantly differ from that in 1998 as a whole.

After the financial collapse of August 1998, Russia – the economic engine of the CIS region – is slowly recovering. As anticipated, the rouble devaluation has not had a substantial impact on Russia's *exports*, which are generally priced in dollars and constrained by transportation capacity. Exports to the non-CIS area have also been discouraged by the imposition of export duties on virtually all primary commodities. While they are ostensibly aimed at reducing the fiscal deficit and slowing capital flight, the duties also make the Russian trade regime more complex – thus, potentially, making economically undesirable rent-seeking activities more attractive.[4] The low level of Russian imports continued throughout the first quarter due to a much lower real value of the rouble and lower industrial output.

The Russian financial crisis, in addition to inflicting heavy economic costs on Russia, continues to have a negative effect on the other CIS countries. In the first quarter of 1999, Russia's imports from CIS countries were down by 50%, a reduction that has certainly contributed to the first quarter GDP contraction (year-on-year) in the largest CIS economies of Ukraine and Kazakhstan and flat GDP growth in Belarus. Improved export performance in many CIS countries crucially depends on the prospects for economic recovery in Russia, but in its present state Russian domestic demand is neither greatly responsive to cheaper domestic substitutes nor is it demanding imports from the CIS.

(ii) Short-term outlook for the transition economies

On balance, the short-term outlook for the ECE transition economies has deteriorated since the beginning of the year. The outbreak of the Kosovo conflict –which was an unexpected negative shock for many transition economies– has undermined the economic prospects for a number of countries, especially those in south-east Europe. The worse-than-expected performance in some CIS countries in the early months of 1999 suggests that the outcome for the year as a whole in some parts of this region may also turn out to be worse than initially expected. In view of the strong negative economic impact of the conflict in Yugoslavia as well as the prolonged impact of the depression in Russian import demand, even the recently revised official growth forecasts for 1999 may turn out to be too optimistic for some of the transition economies. In this regard, the only notable exception among the ECE transition economies is Russia, where the short-term prospects have improved from what was previously expected at the start of the year.

According to the official forecasts available the authorities in three of 12 east European countries expected *falling* GDP in 1999.[5] As there were no obvious signs of a reversal in the current negative outlook at mid-year, it may well be that the number of countries with negative growth will actually increase in the second half. Even the countries forecasting positive growth generally expect lower rates than those achieved in 1998.

The short-term outlook for the east European transition economies highlights once again the increasing divergence among these countries. While growth is expected to continue in most of the central European transition economies (albeit probably at lower rates than in the last few years), it is probable that the south-east European region will see another year of economic decline. On balance, the central European countries appear to be capable of absorbing the negative impact of the deterioration in the external environment with relatively little damage. Conversely, it seems certain that the shock of the Kosovo conflict will lead to the south-east European transition economies falling still further behind.

The short-term economic outlook for the Baltic States is not favourable either. The unexpectedly poor performance in the first quarter suggests that even the revised forecasts have probably not taken into full account all the negative external shocks that these economies have recently been subjected to. Unless a reversal in the current trends materializes in the near future, it may well turn out that some of these countries will end the year in stagnation or recession.

While much uncertainty remains as regards the future of the Russian economy, the short-term prospects have improved somewhat since the beginning of 1999. The problems of the Russian economy are deep-seated and require the implementation of a comprehensive reform program. At the same time, the very high level of foreign debt is a serious burden for the Russian economy and, as openly admitted by high-level Russian officials, Russia will not be able in the foreseeable future to service its foreign debt without additional foreign assistance. This is why the support of the international financial institutions is crucial.

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[4] The Russian government has further increased the number of goods subject to export duties (e.g. hardwood, seafood, alcohol, scrap metal, fertilizers and paper) and in some cases raised their rates (e.g. base metals).

[5] This number excludes Yugoslavia itself for which no official revisions of macroeconomic forecasts were available, however, it is all too obvious that a large fall in Yugoslav GDP can be expected in 1999.

Relations with the IMF suffered a major blow after the August collapse and remained effectively frozen for several months. Only in late April did Russia and the IMF come close to a framework agreement under which the IMF would lend Russia $4.5 billion over 18 months. The approval of this agreement by the IMF board is conditional on a number of measures that the Russian government still has to implement.

Still, in view of the recent improvement in economic performance, the latest official forecasts by the Russian government are more optimistic than they were several months ago. While at the beginning of the year the official government agencies were expecting for 1999 a decline in GDP ranging from between 2% and 10%, by May the expectation was for no more than a 1% decline in GDP. As regards the short-term outlook in the rest of the CIS, it has deteriorated in most cases and it may very well turn out that a number of these countries will end the year in recession.

2.3 Developments in the construction sector

Construction is the single largest market for sawnwood and panels, so it is important to understand trends in the level of construction activity and in the relative importance of different types of construction, where intensity of forest products use varies widely.

This section presents trends in construction in Europe, Japan and North America. No information is available on construction in Russia and the other CIS countries.

(i) Construction in Europe

This section is based on data supplied by EUROCONSTRUCT, a consortium of research institutes specializing in the construction sector.

Overall the construction sector[6] in Europe grew minimally in 1998 (+0.8%). This result is the combination of two contrasting situations: most countries showed growth rates in the range of 3-5% (and over 10% in Finland and Ireland), but in the largest economy of the continent, Germany, construction activity fell by 4.3%, with drops also recorded for Norway and Switzerland. Among

TABLE 2.3.1

Developments in the construction sector, 1997 to 1999

(% change over previous year)

	New residential construction			*Renovation*		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Austria	-4.6	-7.3	-5.5	11.2	6.6	2.3
Belgium	2.7	3.0	3.3	3.3	3.3	3.9
Denmark	8.9	-10.0	-10.0	1.8	0.8	0.8
Finland	12.0	8.0	6.0	6.0	4.0	4.0
France	4.1	9.6	1.8	1.8	2.1	2.4
Germany	-6.4	-1.2	0.5	-0.3	1.0	1.0
Ireland	13.1	14.2	10.0	2.1	6.5	4.4
Italy	-6.8	-2.1	1.4	4.4	5.6	1.4
Netherlands	-5.5	3.5	-2.0	3.2	2.7	2.1
Norway	-1.7	-2.1	9.0	-3.7	0.4	0.9
Portugal	8.0	8.0	1.0	5.1	6.7	4.3
Spain	7.5	6.5	2.0	6.3	6.4	6.5
Sweden	3.5	12.3	22.2	2.3	1.9	3.4
Switzerland	-1.2	-1.0	0.5	4.6	4.6	4.5
United Kingdom	-1.9	-1.3	3.1	-0.3	3.7	4.4
Western Europe (EUROCONSTRUCT)	-1.8	1.6	1.3	2.1	3.2	2.5
Czech Republic	9.8	10.8	2.0	-7.0	-2.1	5.2
Hungary	-20.0	10.0	10.0	10.0	9.0	9.0
Poland	10.5	11.8	13.8	0.3	1.3	1.7
Slovakia	11.1	10.0	15.0	-7.9	1.0	6.1
EUROCONSTRUCT central and eastern Europe	0.0	11.1	11.1	-0.3	1.4	3.0

Source: EUROCONSTRUCT (http://www.euroconstruct.com/project.htm),1999.

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[6] The sector includes: new residential construction; new non-residential construction; building renovation and modernization, and civil engineering.

recorded in Norway and Switzerland. Among transition economies, there was fast growth in Poland, moderate growth in Hungary and a drop in both the Czech and Slovak Republics.

In most countries, growth in the construction sector has been slower than GDP for several years. This is expected to continue also to the year 2000 and beyond.

There is a contrast between the trends for different types of construction. Of the two which have the strongest influence on consumption of forest products, *new residential construction* fell markedly in 1998 (-1.8% for western Europe) while *renovation and modernization* grew by 2.1%.

For *new residential construction*, three of the "Big Five" recorded significant drops in 1998: Germany (-6.4%), Italy (-6.8%) and United Kingdom (-1.9%). Increases were reported for France (+4.1%) and Spain (+7.5%). Taken together the "Big Five" account for 75% of new residential construction in western Europe (Germany alone accounts for 36% of the western European total). Of the countries in transition, growth rates around 10% were reported in Poland and the Czech and Slovak Republics, but a 20% drop in Hungary.

The forecast for new residential construction is for steady growth at the regional level, around 1.5% in both 1999 and 2000 (EUROCONSTRUCT). There are, however, contrasting trends between countries:

- In Germany new residential construction will drop slightly in 1999 but grow slightly in 2000, for the first time since the end of the post-reunification construction boom.
- France should see strong growth (nearly 10%) in 1999 and slower growth in 2000.
- Spanish residential construction, which has been growing fast in the second half of the 1990s will continue to grow slowly (6.5% in 1999, 2.0% in 2000).
- In Italy and the United Kingdom, new residential construction will fall in 1999, but grow in 2000: slowly in Italy, faster in the United Kingdom.
- All four EUROCONSTRUCT transition economies are expected to show strong rates of growth in 1999 and 2000.

Almost all countries have seen steadily rising levels of *building renovation and modernization*. For the EUROCONSTRUCT region as a whole, growth has been above 1.5% every year since 1996 (except for 1997, when it was 1.1%). This trend is in strong contrast to the variability and lower growth rates of new residential construction.

In 1998, only two of the "Big Five" recorded declines and these were small (Germany and United Kingdom -0.3%), while Italy reported 4.4% growth and Spain 6.3%. The EUROCONSTRUCT Western Europe region reported an increase of 2.1% in 1998.

For 1999 and 2000, nearly all countries expect steady, occasionally fast growth in their renovation and modernization sectors, for a regional rate of 3.2% in 1999 and 2.5% in 2000. Spain is expected to record growth over 6% in both years and Hungary over 9%.

The continued growth of activity in renovation and maintenance is a positive sign of demand for forest products, whose flexibility makes them well suited for this type of activity.

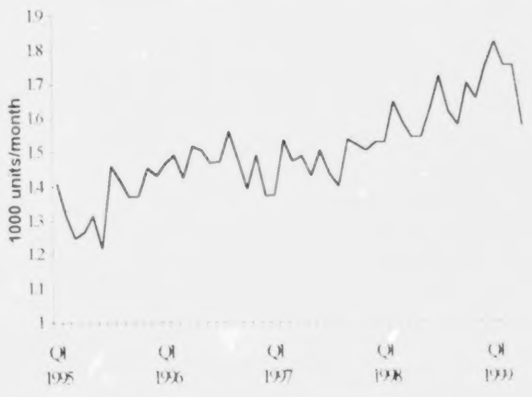
(ii) Construction in North America

The continuing strength of the United States housing market has been the single most important positive feature in world demand for forest products, influencing prices in the largest market and thus, indirectly, elsewhere.

Between 1991 and 1998, the number of United States housing starts rose steadily, from just over 1 million units in 1991 to 1.61 million in 1998 (with a slight hesitation in 1995, see graph 2.3.1). In March 1999, the seasonally-adjusted annual rate was 1.75 million units. The factors underlying this upward trend are the generally prosperous and expansionary state of the United States economy, leading to high disposable income, low interest rates, and the "wealth effect" generated by the huge rise in share values. The average

GRAPH 2.3.1

United States housing starts, 1995 to 1999



Source: *Random Lengths*, 1999

size of each housing unit is also increasing[7]. Nearly 80% of housing starts are single family units, which use more forest products per unit than multi-family units.

The high level of housing starts, the increasing average size of units and traditional North American construction methods, which use forest products in almost all parts of the house (e.g., frame, floors, roof, cladding, joinery) have combined to create one of the strongest-ever demands for sawnwood and panels. This is reflected in the consumption and price data presented later in this *Review*.

In spring 1999 the seasonally-adjusted annual rate for United States housing starts fell sharply from 1.75 million units in March to 1.57 million units in April, a drop of 10%. It is not yet clear whether this is a temporary change, to be corrected soon, or the first sign of a significant downward trend as potential house buyers in the United States lose confidence. Some commentators point to supply-side factors which may have raised levels of starts in the first quarter and depressed them later, thus accounting for the sharp month-to-month fall. Weather conditions in early 1999 were mild and did not constrain house-building, so that starts in the first three months of 1999 were higher than in "normal" years. On the other hand, constraints in the process of construction (e.g. availability of labour and of insulation materials) slowed the process of completing houses, so that starts had to be postponed in the second quarter.

Canadian starts in 1998 were 137.4 thousand units, below the 147.0 thousand units recorded for 1997. In May 1999, the seasonally-adjusted annual rate was 143.5 thousand units. Most housing construction is in Ontario, but the largest changes were in Alberta (+14%) and British Columbia (-32%).

(iii) Construction in Japan

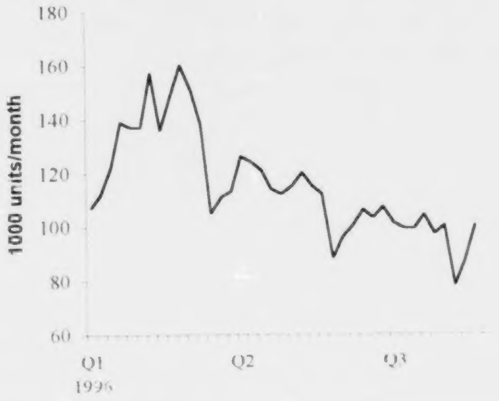
The picture is very different in the other major housing market, Japan, which has been in recession for some time. Housing starts reached a low point of 1.07 million units (seasonally adjusted annual rate) in November 1998. By March 1999 they had risen to 1.30 million units, about the same level as March 1998, but less than the 1.39 million units reported for 1997 as a whole. Results for April show another upward movement for housing starts.

Privately-funded housing starts in Japan remain weak. The recovery is due to a program of government stimulus to housing construction. This was due to end in June 1999 but may be prolonged.

Wooden houses (traditional Japanese style, prefabricated and American-style "2x4" houses) continue to account for nearly half (46%) of Japanese housing starts (graphs 2.3.2 and 2.3.3).

GRAPH 2.3.2

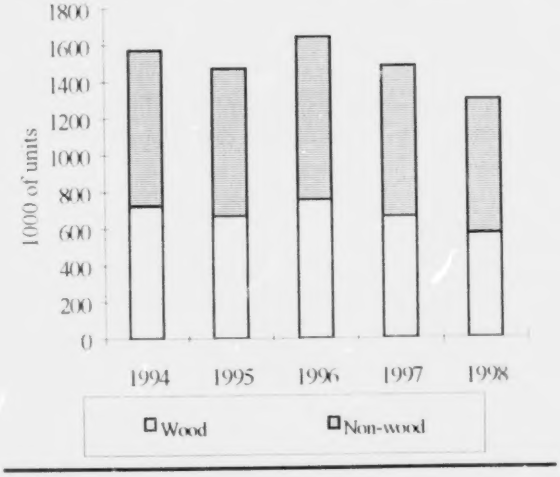
Japanese housing starts, 1996 to 1999



Source: Japan Wood Product Information and Research Centre, 1999.

GRAPH 2.3.3

Share of wood and non-wood housing in Japan, 1994 to 1998



Source: Japan Wood Product Information and Research Centre, 1999.

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[7] The space/planning restrictions, which are a common constraint on construction in many European countries and Japan, are much rarer in North America.

2.4 Recent developments on the furniture markets

This section is based on the report on the furniture industry in Europe prepared by the European Panel Federation and on forecasts by CSIL of Italy. The secretariat expresses its gratitude to both organisations.

European furniture production accounts for about 45% of world supply: 25% originates in Asia and 19% in North America. The European furniture sector is now considered "mature", with limited growth potential. It is composed mostly of small and medium-sized enterprises, many family owned. In Asia and North America, the sector is much more concentrated: the top ten companies account for less than 9% of production in Europe, but 39% in the United States. Among European countries supply is fragmented in Italy and Spain, but less so in Germany, France and the United Kingdom.

Germany is the leading European furniture producer followed by Italy, France and the United Kingdom. The combined production of these four countries increased by about 2.5% in 1998: a similar level is expected for 1999 (CSIL). The increase was attributable to domestic consumption in Germany, France and Italy. Exports also contributed as they are growing steadily, but imports are growing even faster. The trade balance of the four countries with the rest of the world remains positive.

Many European producers play a leading role in the international furniture trade. Italy, Germany, France, Denmark, United Kingdom, Belgium, Sweden and Spain are, in that order among the top fifteen exporting countries in the world. Italy still holds the top position, but Germany has fallen to third, overtaken by the United States. Trade volumes within Europe have dropped, but there have been enormous increases in flows to and from eastern Europe.

Trends in the major furniture producers may be briefly summarized as follows:

- In *Italy* domestic demand started to grow again, as well as production. The rate of growth of Italian exports was 3% (in volume), slower than in previous years.
- In *Germany* domestic and export demand both recovered after a period of stagnation.
- The *French* furniture sector continues to perform well, with growth in exports and moderate increases in domestic consumption.
- In the *United Kingdom* domestic consumption fell and exports slowed. The strength of the pound sterling helped imports and hindered exports.

A recovery in consumption and exports is expected in 1999 (CSIL). German consumption may strengthen and that in the United Kingdom decline further. Italy (the only country with significant exports outside the EU) may record slower exports (table 2.4.1).

TABLE 2.4.1

European furniture sector, 1996 to 2000

(% change over previous year, constant prices)

	1996	*1997*	*1998*	*1999*	*2000*
Production	-0.3	-0.7	1.8	1.7	3.6
Consumption	0.4	-1.7	1.7	1.9	3.2
Export	3.3	7.2	6.4	4.8	8.0
Import	5.6	4.9	7.2	7.1	7.8

Source: CSIL estimates/forecasts, quoted by European Panel Federation, 1999

2.5 Competition and substitution

The level of consumption and the price of forest products depends not only on the level of activity in the consuming sector, but also on the market share of forest products, which results from their competitiveness (on price, convenience, performance), compared to other materials. The factors underlying substitution towards or away from forest products include perceptions of the environmental qualities of the competing materials, promotion efforts by industry associations and other influences.

These ideas are elaborated in the *Competitive Climate for Wood Products and Paper Packaging: the factors causing substitution with emphasis on environmental promotions*, prepared by a sub-group of the FAO/ECE Team of Public Relations specialists in the Forest and Forest Industries Sector. A full report has been issued by the team, and a summary will be issued as an ECE/FAO Geneva Timber and Forest Discussion Paper.

The report systematically compares the production structure, market shares, environmental promotion and advertising of the following industries: wood and paper packaging, plastics, aluminum, steel, concrete and gypsum. The main points may be summarized as follows:

- The forest products industry is capital intensive (especially pulp and paper), but ownership is more fragmented than in competing industries. The industry structure and organisation of the plastics and aluminium industries facilitate raising of funds for lobbying and public relations.

- In the past, the main environmental issues were emissions, discharge and waste. Now the focus is shifting towards raw material procurement.
- The forest industry has many advantages over competing materials: renewable raw material, advanced production techniques, safe products which can be disposed of or recycled with low environmental impact, and possibility of recovering energy content after use.
- Most consumers understand the link between forest harvesting and product manufacture.
- Paper, steel and aluminium have the highest recycling rates.
- The emphasis on climate change strengthens forest products' competitive position.
- Steel and concrete are the toughest competitors to forest products in construction, and plastics and aluminium for packaging.
- Many factors affect substitution, including perception of environmental issues, as well as classical determinants such as price and performance in use.
- Customer awareness of environmental issues is growing in many parts of the world and consumers increasingly take environmental factors into account in decision making. In the EU, survey results show "environmental protection" as a theme has lost ground to other issues such as unemployment and recession.
- Environmental issues are similar in Canada and the United States: conservation of public lands and threatened species, logging and aboriginal issues. In Europe the forest environmental issue has been air and water pollution.
- Several surveys indicate that the public attributes a high level of credibility to environmental organisations, while foresters are also considered credible sources of forest-related specialist information. Politicians are not so well regarded. Wood is perceived as the most environmentally-friendly raw material, although there is concern about replanting and sustainability of supply.
- Substitution of forest products by competing products is accelerating. In some cases, substitution is resulting from environmental claims that are erroneous, incomplete or unproven.
- Forest industry ownership is fragmented and spends little on public relations compared to competing industries.
- There is a need for cohesive international forest industry action to combat substitution and educate the public. There are persistent misconceptions about forests, forest industry and a continued challenge for environmental organisations.
- An International Forest Communicators Forum should be organised to assist in meeting the above challenge.
- International co-operation is needed to prepare broad educational campaigns on the importance of forest products and to stimulate and promote the sound use of wood and other forest-based products as environmentally friendly and renewable raw materials.
- The actions should be planned with necessary links to inter-governmental processes, and other relevant international and regional arenas.

2.6 Flooring market

The European Panel Federation reports on trends in market share in the flooring material sector.

EPF research (citing Intercontuft and "own calculations") suggests the following:

- There are wide regional differences in flooring markets, with textile carpets dominant in central Europe, vinyl in Scandinavia and ceramic tiles in southern Europe.
- Textile still has the largest market share, but this is dropping from around 56% in 1994 to about 50% in 2000.
- Stone and ceramic tiles have a roughly constant market share of around 20%.
- Vinyl claims a 15% share, which may be declining.
- Wood parquet is increasing its market share and represents 5% of the market.
- The most spectacular growth has been in a wood-based product: laminate flooring. Growing from near zero in 1990 to 5.3% in 1997 and 6.3% in 1998, the rapid market penetration may become to an end.
- Currently wood-based products (parquet and laminates) account for about 12% of the flooring materials market, including the sector with the most rapid growth in recent years.

CHAPTER 3

ESTONIA'S FOREST PRODUCTS MARKETS[1]

Highlights

- The Estonian forestry sector has been characterized by rapid growth of foreign investments and export volumes since 1992.
- Production in the wood sector has doubled every two years since 1994 and is coming into equilibrium with the forest resource.
- Exports of wood and wood products grew rapidly in the early 1990s, but are stabilizing due to increased domestic consumption and value-added processing.
- Pulpwood exports will continue to be an important export commodity until pulping capacity is developed.
- In 1998 gross fellings were 78% of the maximum annual sustainable cut and sawlog imports are growing.
- Wood panel production and trade have grown steadily since 1994 and appear near current capacity.
- Domestic markets for certified forest products do not exist and exports are not limited by non-availability of certified timber.
- Estonia's forest and forest industries sector's institutional framework has developed through interest group consensus and together with other national and international acts and agreements.
- Future developments, based on a number of positive attributes of the Estonian forest and forest industries sector, will depend on the resolution of sectoral problems and on continued foreign investment.

Secretariat introduction. This chapter was written by Mr. Erik Kosenkranius, Director, Department of Forestry, Ministry of Environment, Tallinn, Estonia. The *Forest Products Annual Market Review* will feature one ECE member country's forest products markets each year, in part to prepare the market discussions at the Timber Committee Session. Estonia was chosen as one of this year's focal countries to give readers a more in-depth look at an evolving forest products market. We thank Mr. Kosenkranius for his valuable contribution and the insight into one of the fastest emerging forest products producers in the ECE region.

3.1 General economic developments

The developments in the Estonian forestry sector have been characterized by rapid growth of foreign investments and export volumes. Owing to the country's general economic policy, the core ideology of which has been free enterprise, conservative monetary policy and reduction of the public sector's share in the business sphere, the economic environment has gradually become more favorable for forestry as well as other enterprises. Especially fast development has occurred in transport, communication, fishing, financial intermediation, construction and retail trade. Data show an average annual economic growth of 4.1% and even higher growth, 19.6% (deflated), in the forestry sector (table 3.1.1) as well growth of investments (graph 3.1.1).

The external economic environment remained unstable in 1998 (the Asian crisis, which started in 1997 was followed by a crisis in Russia). This brought decreasing export opportunities for Estonia and a

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[1] By Mr. Erik Kosenkranius, Director, Department of Forestry,

Viljandi mnt. 18b, EE-0012 Tallinn, Estonia

Tel. +372 62 81 500, e-mail: erik@riigimets.ee

TABLE 3.1.1

Growth of the GDP (deflated) and consumer price index

	Growth of GDP	*Growth of GDP in forestry*	*Consumer price index*
1994	-2.0%	15.3%	147.7%
1995	4.3%	28.4%	129.0%
1996	3.9%	10.4%	123.1%
1997	10.6%	30.5%	111.2%
1998	4.0%	13.2%	108.2%
5-year average	4.1%	19.6%	123.8%

Source: Statistical Office of Estonia

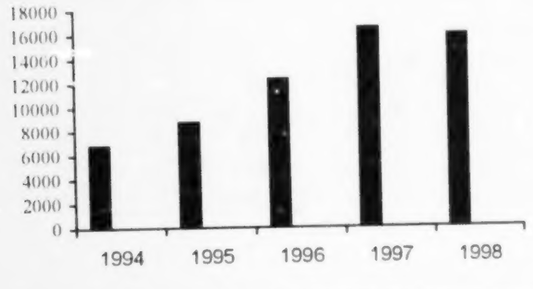
downward revision of its external financing-based growth strategy.

In concordance with the aforementioned, Estonia has tried to revise its legislation. Estonia concluded an association agreement (the European Agreement) with the European Union and its member states in 1995 and has ratified free trade agreements with the European Union, Hungary, Poland, Slovenia, Slovakia, the Czech Republic, Turkey, Latvia, Lithuania, Ukraine, Switzerland and Norway. Negotiations to attain WTO membership are coming to an end and the chances of getting an EU membership in the first round are good according to the experts.

GRAPH 3.1.1

Investments in fixed assets

(in current price, million EEK)



Source: Statistical Office of Estonia

Rapid economic and institutional development has strengthened the stability of economic environment on one side, but on the other side has caused social and regional problems. Registered unemployment has increased from 1.9% to 5.3% (in April 1999), while in some regions (Ida-Virumaa and Saaremaa) this indicator has reached the level of 10%.

In 1998, changes in the economic environment were quite sharp and had a significant impact on price adjustment. Prices increased by 8.2% (table 3.1.1). At the end of the year the Estonian kroon appreciated against several currencies important for the Estonian foreign trade. The nominal exchange rate against the United States dollar and Russian rouble changed most, appreciating by 5% and 60% respectively at the end of 1998. The real effective exchange rate (REER) of the kroon reflects changes in Estonia's price level against foreign trade partners. In 1998, the REER, based on the consumer price index increased by 10.4%, leaping in September when the index was more than 20% higher than the annual average. This was brought along by the devaluation of the Russian rouble, as the share of the rouble in the index is about 10%. All-in-all the real exchange rate of the kroon appreciated against currencies of major industrial countries by 8.3%, and against currencies of transition economies by 17%. In 1998 the average exchange rate was 14.1 Estonian kroons EEK per US dollar.

The average annual growth rate of the average salary has been 32% during the last five years. This growth resulted from an increase in real income, especially in Tallin where 35% of the population lives; some inflation; and full disclosure of salaries actually paid.

The slowdown in economic growth was accompanied by the declining wage growth rates. In the second half of 1998 the annual nominal wage growth rate slowed down practically in all the branches of economy except in financial intermediation and public services. The average nominal wage increased by about 15% against 1997 whereas the real wage growth rate was slightly below that of 1997 (6.3 and 7.6% respectively).

The building industry, important for domestic wood consumption, has increased its production volume from year to year (there was a growth of 42% in 1998 compared to 1997). Interest rates for dwelling loans (like all the loan interests) have remained high (the annual interest rate for long-term loans was 13.5% in March, 1999) and loans have been issued for comparatively short periods (10 to 20 years).

3.2 Forest resources

The area of forest land is 2.0 million hectares in Estonia meaning that 47.5% of the territory is covered with forests. Coniferous forest cover 1.2 million hectares and deciduous forest 0.8 million hectares. The principal tree species are Scotch pine (39%), Norway spruce (25%), birch (27%), grey alder (4%) and aspen (3%). The total growing stock has been estimated to be 295.1 million m^3 and the annual increment 9 million m^3.

About 15% of forests are nature reserves (of which 90% are situated in the state forest land). Approximately 3% of the area has full protection regime and the aim is to increase this share to 4%.

In 1998 gross felling volume was 6.1 million solid cubic meters, which was 10% more than in the previous year. Final fellings amounted to 3.6 million m^3 making up 60% of gross felling.

2.7 million m^3 was felled in state forest, which was 45% of gross felling (table 3.2.1). According to the National Forestry Policy the maximum annual sustainable volume of wood utilization in all the Estonian forests is 7.8 million m^3 (51% from private forests and 49% from state forests). The annual cut of pulpwood is estimated to be 3.12 million m^3 (60% hardwood) and of sawlogs 2.92 million m^3 (32% hardwood). Fuelwood and wood waste are calculated to be 1.77 million m^3.

In 1998 the felling area by felling types was the following: final felling 17,134 hectares; selection felling 3,703 hectares; thinnings 84,933 hectares; and other fellings 3,579 hectares. 6,800 hectares of forest land was reforested in 1998.

TABLE 3.2.1

Felling volumes in state and private forests 1993 to 1998

(million m^3)

	Gross felling in state forests	*Total felling*
1993	2.4	2.4
1994	2.8	3.6
1995	2.8	3.8
1996	2.7	4.0
1997	2.9	5.5
1998	2.7	6.1

Source: Department of Forestry

The forest land has the following ownership structure: approximately 1 million hectares belong to the state and about as much to private owners (of which about 100,000 hectares are company forests and 600,000 hectares are still in the process of restitution).

According to present targets, the restitution program will be implemented for 2005. About 250,000 hectares are estimated to be forest areas for which no ownership claims will be made. The new private forest holdings will have an average area of 10-11 hectares. It is foreseen that the unit size will begin to grow after the restitution process is finished.

3.3 Institutional framework

The elaboration and execution of the Estonian forest policy is the task of the Ministry of Environment. The Forest Department, with the function of executing and monitoring the forest policy, and the State Forest Management Centre in the form of a state business enterprise responsible for the management of state forests, are acting under the jurisdiction of the Ministry of Environment.

The Estonian Forest Policy that was approved by the Parliament in 1997 defines the principal goal of forestry as the sustainable and effective management of forests. With the aim of achieving this goal, a five-year forestry action plan was formulated and forestry-related legislation has been renewed (the Parliament approved a new Forest Act in December, 1998). In 1999, drafting of a 10-year forestry action plan was started and this plan should be ready in 2001.

In addition to the Forest Act, forestry is regulated by the Protected Nature Objects Act (1998), Environmental Supervision Act (1997), Wildlife Protection and Utilisation Act (1998), Shore and Coastline Protection Act (1995), Sustainable Development Act (1997), Hunting Regulations Act (1994), Estonian Environmental Strategy (1997), Estonian Environmental Action Plan (1998), Planning and Building Act (1995), Mineral Wealth Act (1997), Water Act (1998), Environmental Monitoring Act (1999) and Antiquities Protection Act (1994).

Estonia has also ratified the following international agreements having more or less influence on forestry: the Ramsar Convention (concerning protection of wetlands); the Washington CITES Convention (on international trade with endangered plant and animal species); the Bern Convention (on European natural species and their habitats); the Biodiversity Convention; and the ILO (International Labour Organisation) Convention.

The Estonian economic and export policies are being elaborated and executed by the Ministry of Economy. The Ministry initiated the Estonian Foundation of Trade and Investments (EFTI) with the task of developing exports by 1) participation in the elaboration and coordination of execution of national export development programs, 2) creation of an export-favouring environment and export support systems based on private enterpreneurship, and 3) ordering of research and development projects dealing with export. The Estonian Export Policy and the action plan for 1999 - 2001 have been elaborated.

A subunit of EFTI, the Estonian Foreign Investment Agency (EFIA), deals with bringing direct foreign investments into Estonia. The Agency promotes technology- and capital-consuming, export-oriented investment projects creating up-to-date employment opportunities. The most favored sectors at the moment are wood processing (including pulp and paper industry), electronics and apparatus industry, transportation, transit and logistics.

3.4 Forest industry

Estonia's wood processing industries – like other industrial sectors – underwent a rapid restructuring process in the early 1990s. The recovery has been sound and presently the forest and wood-working industries (primary wood processing, furniture manufacturing and pulp & paper production) are the third largest industrial sector with 13% of total industrial output. In 1997, total production increased by 47% compared to the previous year, achieving the highest growth rate in the manufacturing sector in Estonia (table 3.4.1 and 3.4.2).

TABLE 3.4.1

Industrial production in the wood sector
(million EEK)

	Production
1993	509
1994	922
1995	1743
1996	2054
1997	3313
1998	4065[a]

Source: Department of Forestry

[a] forecast

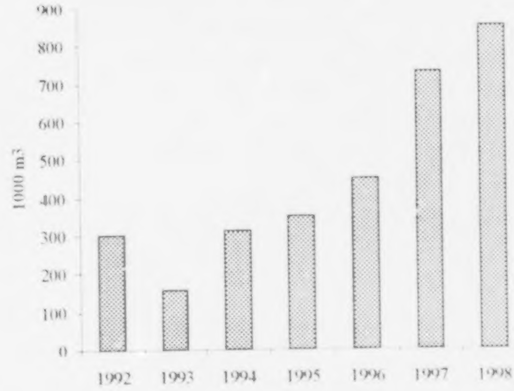
The Estonian wood processing industry consists of hundreds of companies, the majority of them being of small and medium size. The average size of firms is increasing and production capacities are being concentrated in a smaller number of units. The industry employs over 14,300 people, accounting for 13.4% of the total Estonian industrial labour force.

The construction joinery and prefabricated building sector is one of the fastest growing segments within the manufacturing industry. With a 1997 growth rate of 46%, future annual growth of 10-15% is expected during the next few years. Recent developments in the sawmilling industry and an increase in kiln facilities have created a good basis for future development. With export volumes having tripled in the recent years, 60% of the production is currently exported –mainly to Germany, United Kingdom and Scandinavia.

Sawmilling has so far been the best-performing branch of the wood processing industry (graph 3.4.1). It was technically not very well developed in the early 1990s, but it has upgraded its production facilities and quantity over the past few years in a remarkable manner. Investments in modern equipment and the development of skilled staff provide a solid basis for future expansion of capacity. The construction of new sawmills and modernization of old ones is expected to expand production capacities over 1.1 million m^3 within the next three years.

GRAPH 3.4.1

Sawnwood production, 1992 to 1998

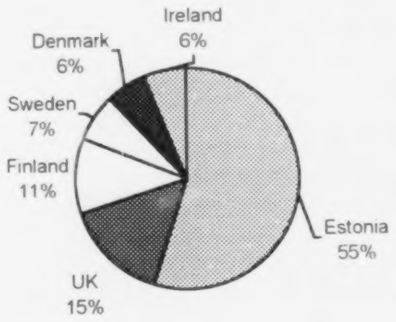


Source: Department of Forestry

The estimated capacity of kilns is 650,000 m^3 per year, which could increase to 800,000 m^3 according to planned investments. The ownership structure of the sawmilling industry is characterized by increasing shares of foreign, mainly British and Finnish, capital while the Estonian share remains around 50% of all the sawmilling production (graph 3.4.2).

GRAPH 3.4.2

Production by company ownership in 1998



Source: Department of Forestry

TABLE 3.4.2.

Wood industry production, 1992 to 1998

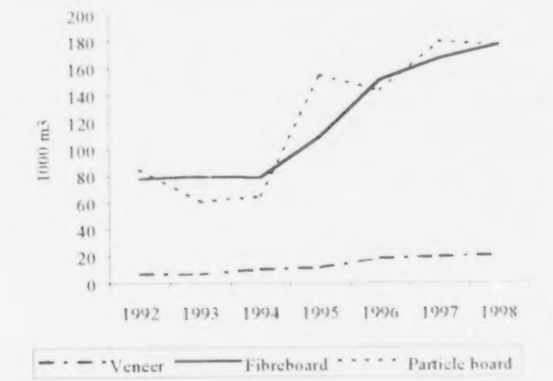
	unit	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*
Sawnwood	*(1000 m^3)*	300	157	310	350	450	728.5	850
Veneer	*(1000 m^3)*	6.5	6.4	9.9	11.1	18.1	19.5	21.0
Fibreboard	*(1000 m^3)*	77.8	79.3	78.5	108.9	151.0	166.8	177.0
Particle board	*(1000 m^3)*	85.0	60.6	64.6	154.8	143.0	179.4	176.6
Pulp	*(1000 t)*	35.0	0.0	0.0	0.7	20.7	35.5	44.1
Paper	*(1000 t)*	33.4	0.6	0.0	0.6	20.5	33.2	43.2

Source: Department of Forestry

Board manufacturing –including veneer, plywood, particle board and fibreboard– has been growing steadily at 15% per year (graph 3.4.3). Although the growth has mainly been based on the expansion of existing production facilities, there has been a recent significant greenfield investment in veneer production. The sector is dominated by five companies: two particle board, two fibreboard and one plywood factory. Production is concentrated in northern and western Estonia. The companies have been in operation under various enterprise forms for 20 years on the average. Production equipment is primarily of German origin. Fifty per cent of the production is exported, mainly to customers in the EU countries.

GRAPH 3.4.3

Veneer, fibreboard and particle board production, 1992 to 1998

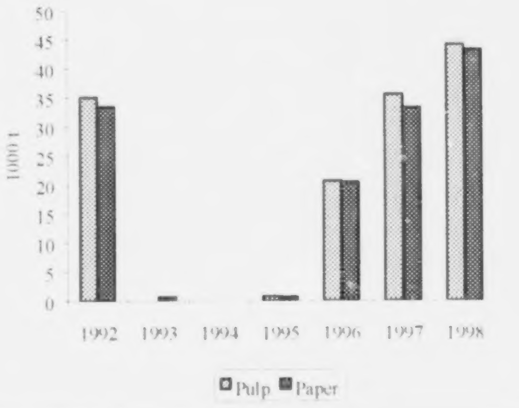


Source: Department of Forestry

After a severe crisis at the beginning of the 1990s one pulp and paper mill has restarted operation, however production volumes are quite small. The total production volumes in 1998 were 44,000 tonnes for pulp and approximately 43,000 tonnes for paper products (graph 3.4.4). Approximately 3.0 million m^3 of pulpwood that is presently exported to Nordic pulp mills could be processed in Estonia in the future.

GRAPH 3.4.4

Pulp and paper production, 1992 to 1998



Source: Department of Forestry

3.5 Trade of wood and wood products

The export-oriented economy of many small countries is characterized by a high share of exports in the gross domestic product. Resulting from its small domestic market, the share of exports in the Estonian GDP is also higher than in most other countries. For example, the total export of goods and services was 58.4 billion EEK (approximately $3.8 billion) or 80% of the GDP in 1998.

The total export of goods has doubled in current prices over four years, i.e. from 1995 to 1998. Three areas have been dominant in the total export of goods in those years: machinery (with the share of 13-20%), wood and timber products (12-13%), textile and textile products (12-14%). The average annual growth rate of the export of wood and timber products has been 52%

in the last five years (table 3.5.1). In 1998 the largest increases were in the exports of plywood (2 times) and firewood (1.5 times) compared with 1997. The export of wood in the rough, prefabricated wooden buildings and sawn timber increased 1.2-1.3 times.

TABLE 3.5.1

Estonian wood export in comparison with total export
(million EEK)

	Total export	*Export of wood and wood products*	*Export of paper products*
1993	10,636.2	800.5	63.4
1994	16,928.3	1,730.1	139.6
1995	21,068.1	2,622.4	246.1
1996	25,022.9	2,856.9	491.8
1997	40,407.8	4,681.6	942.5
1998	45,567.6	5,789.1	1,097.9

Source: Department of Forestry

The *export* of wood in the rough (mainly pulp and sawlogs) still made up the largest proportion in the total export of wood and articles of wood (29%) in 1998 (1992, 54%, 1995, 35%). The export of sawnwood was in second place, making up 22%. Third came the export of wooden furniture, which made up 17% of the total export of wood and articles of wood.

The *import* of wood and articles of wood has also increased from year to year, but it forms a small proportion in the total imports of Estonia (2% in 1998) (table 3.5.2). Mostly furniture of wood (24%), plywood and other layer materials of wood (15%), builders' joinery and carpentry of wood (13%), sawn timber (12%) and particle board (9%) were imported.

The major export markets are Finland, Sweden, Norway, Germany, Netherlands and United Kingdom. Imports are mainly from Estonia's neighbouring countries: Russia and Latvia. The main domestic wood consumers are the wood industry (77%), energy production and households (21%), and furniture manufacturers (1%). About 10-15% of the sawnwood production is sold to local wood industry and construction. Approximately 50% of the fibreboard and particle board production is utilized on the domestic market (mainly by furniture manufacturers).

TABLE 3.5.2

Import of wood, wood products and paper products
(million EEK)

	Total import	*Import of wood and wood products*	*Import of paper products*
1993	11,831.4	91.2	244.2
1994	21,486.4	299.8	570.3
1995	29,117.8	452.1	974.0
1996	38,887.1	569.7	1,265.4
1997	61,324.7	834.6	2,379.1
1998	67,350.6	1,121.7	2,153.4

Source: Department of Forestry

Growing domestic competition and a liberal foreign trade regime have brought about the approximation of Estonian prices for wood and wood products to the corresponding world market prices. In the last four years (1995-1998) the prices of sawlogs and pulpwood sold from the state forests have grown correspondingly by 9% and 5% annually (table 3.5.3). Price differences compared to corresponding Scandinavian prices have decreased from 25% to 7% for sawlogs and from 30% to 24% for pulpwood. It can be assumed that the established price differentials will remain for the years to come (Estonian pulpwood prices will presumably only approach Scandinavian levels after the investments into pulp industry have been carried out).

(i) Pulpwood and sawlogs

3.8 million m³ of unprocessed roundwood was exported in 1998, which was 62% of the felling volume and exceeded the export volume of 1997 by almost 27% (graph 3.5.1). 2.2 million m³ of conifer roundwood and 1.6 million m³ of deciduous roundwood (mainly birch and aspen) was exported. The main destinations were Sweden (52.6%), Finland

TABLE 3.5.3

Prices of pulpwood and sawlogs in Estonian state forests
(roadside prices: EEK/m³)

	Pine sawlogs	*Spruce sawlogs*	*Pine pulpwood*	*Spruce pulpwood*	*Birch pulpwood*
1995	501	470	286	306	320
1996	458	416	214	220	234
1997	539	550	262	265	303
1998	607	632	305	320	345
1999 [a]	619	674	290	309	304

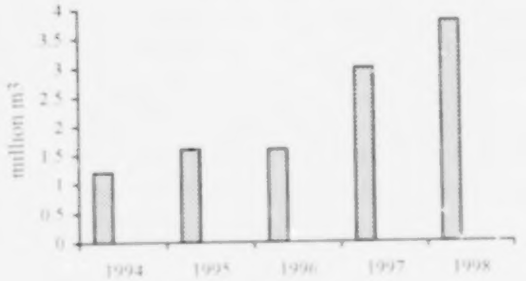
Source: Department of Forestry

[a] First five months of 1999

(25.6%), Norway (15%) and Germany (3.9%). Altogether, pulpwood and sawlogs were exported to 23 countries. Some 80% of roundwood export volumes are concentrated to 10 large Nordic companies.

GRAPH 3.5.1

Export of industrial roundwood
(wood in the rough)



Source: Department of Forestry

Although only 0.3 million m³ of unprocessed roundwood was imported in 1998, this was almost three times more than in 1997. 0.2 million m³ of conifer roundwood and 0.1 million m³ of deciduous roundwood was imported. The main import volumes came from Russia (80.9%), Latvia (16.8%) and Belarus (1.4%). Most of the import assortment was sawlogs. Altogether, roundwood was imported from 11 countries.

Due to increasing domestic consumption, some decrease in the roundwood export volumes has been forecast for 1999 (concerning mainly sawlogs). The annual export volume should be approximately 3 million m³. At the same time the import of roundwood should increase by 70%, reaching the level of 0.5 million m³, these are predominantly sawlog imports from Russia.

(ii) Sawnwood

In 1998, 690,000 m³ of sawn softwood and 57,000 m³ of sawn hardwood (96% of which was birch) was exported from Estonia in 1998, a 17% increase over 1997.

In 1998 the import volume increased to 93,000 m³ (annual growth of 43%), whereas the market situation brought about specifically the growth of the import of spruce sawnwood.

Sawn softwood was exported mainly to United Kingdom (42.5% of the export volume), Germany (11.6%), Netherlands (8.4%), Egypt (8.3%), France (6.8%), Finland (4.7%) and Denmark (4.4%). The biggest export volumes of deciduous sawnwood went to United Kingdom (41.1%), Finland (14.7%), Netherlands (7.9%) and Denmark (6.8%). Altogether, sawnwood was exported to 39 countries.

In 1998, imports of sawnwood increased to 93,000 m³, a 43% increase over 1997. Sawnwood, mainly spruce, was imported mostly from Russia (67.9%), also from Sweden (12.7%), Finland (12.2%) and Latvia (3.3%). Sawnwood was imported from 16 countries altogether (the most exotic of which, although not large quantities were from Myanmar, Congo, Honduras and Brasil).

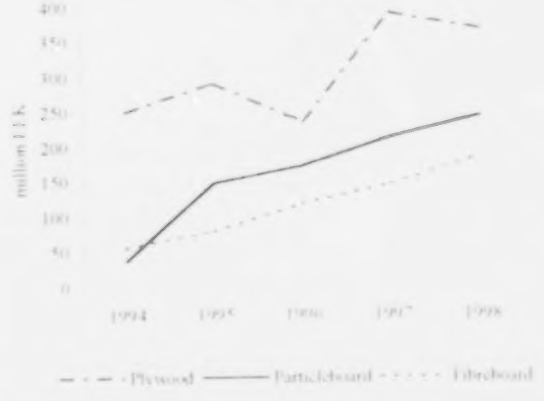
The export volume of sawnwood is expected to be 790,000 m³ in 1999, 730,000 m³ of which will be softwood. The import of sawnwood is expected to exceed 150,000 m³ by the end of 1999.

(iii) Wood panels

The exports of the wood panel industry were 14% of the total export value of wooden products in 1998: 68,000 m³ of plywood, 125,000 m³ of particle board and 195,000 m³ of fibreboard. Plywood was mainly exported to Sweden (23.3%), United Kingdom (21.3%) and Germany (16.6%) (the share of those countries was 20.2%, 15.3% and 25% in 1997 respectively). Particle board was exported mainly to Sweden (26.8%), Poland (20.8%), Finland (18.3%) and United Kingdom (8%). Most of the export of fibreboard went to Italy (27.3%), Sweden (20.1%), Germany (14.5%), United Kingdom (10.5%), Denmark (9%) and Netherlands (8.9%).

GRAPH 3.5.2

Export of plywood, particle board and fibreboard, 1994 to 1998



Source: Department of Forestry

In 1998, 62,000 m^3 of plywood was imported, 91.6% of which from Russia. 44,000 m^3 of particle board was imported mainly from Germany (52.7%) and Finland (24.8%). 60,000 m^3 of fibreboard was imported mainly from Russia (52.3%) and Belarus (26.9%).

The import and export of plywood are forecast to remain at the level of 1998. The export of particle board is expected to grow by 5% to 10% and its import by almost 2.5 times. The export volume of fibreboard is expected to decrease by 25% and its import volume by even more, down by 50%.

(iv) Pulp and paper

About 90% of Estonian paper and paperboard consumption is satisfied by imports. This corresponds to an average consumption of 30 kilograms per capita per year which is low figure by western European standards.

No pulp was imported in 1998, as the Kohila Paper Factory has stopped producing paper from pulp (it continued only converting imported paper into paper products). 3,000 tons of pulp were exported, mostly as sample deliveries to Belgium and Switzerland. 89,000 tons of paper and cardboard were imported (almost 29% more than in 1997) and 83,000 tons were exported (an increase of 60%). Paper and paperboard were exported mainly to Belgium (23.1%) and Ukraine (20.7%). Most of the imported paper came from Russia (56.6%), Finland (30.1%) and Sweden (6%).

(v) Markets for certified forest products

No essential changes in the supply and demand of certified forest products could be noticed in 1998. A questionnaire among major producers and exporters showed that most of them were aware of alternative certification possibilities, but had not invested in product certification because of the lack of direct demand (and because their owners abroad had recommended not to do so in many cases). The situation is further complicated by the fact that most of the private forest owners are small owners, with average holdings of approximately 10 hectares and are often persons far from forestry and therefore have no knowledge or interest in certifying their forests. Consequently, the domestic market lacks a supply of certified wood. In addition there is no direct or indirect (through price bonuses) industrial demand for certified raw material. There were no certified forests in Estonia as of the middle of 1999.

The demand for certified forest products is getting to be a problem for some small enterprises having key customers among the 95+ Group in the United Kingdom, and for the wood panel manufacturers exporting about 10% of their production to the United Kingdom.

The Forestry Board initiated a forest products certification standard workgroup in November, 1998. Representatives of the Estonian wood industry, private forest owners, non-governmental environmental organizations, state forest management and certification/standardization organizations participate in its work. The goal of the workgroup is to elaborate or apply a national certification standard for the year 2000 at the latest. The management of the workgroup has suggested to apply to FSC for a national FSC workgroup status.

(vi) Future developments and perspectives

Although the Estonian forest industry has gone through rapid development, the sector has some problems to be solved in the near future. The most important of them are the following:

- The Estonian forest industry is comprised of many individual enterprises which lack the necessary vertical integration and marketing alliances to function as a concentrated industry.
- Most part of small enterprises lack development strategies, have an inadequate information exchange with consumers and have weak product development.
- The main problem of major companies is the lack of qualified personnnel;
- The export structure is quite primitive (containing a great share of raw material) and export is excessively concentrated on about ten export markets;
- The value added to pulpwood and firewood (pulp production, charcoal production, etc.) is almost non-existent.

Simultaneously there has been a quick development of wood provision, production of sawnwood, wood panels and furniture. Here the critical factors of success have been:

- the existence of wood resources;
- the existence of quite highly qualified labour;
- a comparatively good market position (the Baltic Sea region is the fastest-growing market in Europe with over 70 million consumers) and liberal foreign trade policy;
- privatisation of the state-owned wood industry;
- a strong banking sector and conservative monetary policy;

- a forest policy based on the consensus of interest groups, that has increased stability in the forestry sector;
- well developed infrastructure, including modern communication possibilities; and
- participation of strong strategic foreign investors in the major projects.

Owing to more extensive forest utilization, growing volume of local wood processing and the local wood market getting closer to the world market conditions, we can see processes underway that are supporting the development of sustainable forestry in every sense. Effective utilization of the forest resources and sales of forestry products of higher value added creates assumptions for a forest owner to earn higher revenues, which in turn can be invested into the forest (for buying genetically valuable forest renewal stock, fire protection, building of forest roads, protection of nature objects, etc.).

The sustainable development of the forestry sector is based on the consensus of forestry-related interest groups (i.e. the national forest policy), liberal economic policy, foreign trade policy supporting stable and sustainable economic growth. Estonia has the basis mentioned and the actual results can be seen. Consequently, the economic policy trends should remain unchanged in the short and medium term.

CHAPTER 4

NEW ZEALAND'S FOREST PRODUCTS MARKETS[1]

Highlights

- In 1998/1997, the roundwood equivalent of 10.7 million m^3 was exported, in raw and processed form this 5.8% fall from the previous annual period was due to the economic crisis in many important Asian markets.
- Forests cover 8.1 million hectares, or 30% of New Zealand's land area. Of this, 6.4 million hectares are indigenous and 1.7 million hectares are planted forests.
- Last year 15.9 million m^3 of wood were harvested from these forests, but that could increase by 80% to 30 million m^3 in 2010 with increasing available wood supply.
- In 1998/1997, 10.7 million m^3 were processed on-shore by New Zealand's industry mix of four pulp and paper companies, five panelboard companies, more than 400 sawmills and 80 remanufacturing plants.
- Forestry directly provided jobs for more than 25,500 people and contributed about 4.0% to the GDP and ranked third in terms of commodity exports.
- In global terms, New Zealand is a small player, accounting for 1% of the world's total supply of industrial wood and 1.2% of the world's total trade in forest products.
- Log exports recovered dramatically in early in early 1999 as Japan and Korea replenished depleted stocks.
- New Zealand is diversifying into value-added production, e.g. engineered wood products, partly to avoid future downturns in commodity markets.
- While Australia remains the major sawnwood market, New Zealand has increased market share in the United States through strategic alliances and joint ventures.

Secretariat introduction. The secretariat would like to thank Mr. John Eyre, Senior Policy Analyst, and Mr. James Barton, Senior Policy Analyst, New Zealand Ministry of Agriculture and Forestry for their work and support on this special chapter. Starting this year, it is the intention of the secretariat to feature a country's forest products markets, either trading partner or competitor, from outside the ECE region in the *Forest Products Annual Market Reviews*.

4.1 Background to New Zealand's plantation forestry sector

The physical separation of (mainly exotic) production forest from (mainly indigenous) protected forest gives New Zealand an opportunity to market its forest products as coming from sustainably-managed plantation resources.

Planning for this separation of exotic production and indigenous protection forests started a century ago. During the latter years of the 19th century there was an increasing concern that timber supplies from the slow-growing indigenous forests would eventually be exhausted. After the State Forest Service was established in 1919 the Government recognized the need to regulate indigenous timber removal and plan for the long term. During the 1920s and 1930s, large-scale forests of exotic species began to be established, with the aim of providing a resource to supplement

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[1] By John Eyre and James Barton
Ministry of Agriculture and Forestry,
PO Box 2526, Wellington, New Zealand
Tel: +64 4 474 4100, Fax: +64 4 474 4206
e-mail: eyrej@maf.govt.nz and barton@maf.govt.nz

(and subsequently replace) indigenous timber supplies[2].

By the 1960s the diminishing indigenous forest resource began to feature specifically in Government policy, which was that these indigenous forests were a transitional timber resource to be eventually replaced by planted forests. In the early 1970s the Government introduced further measures to control timber indigenous harvesting and these measures have strengthened over time. Currently nearly 80% of New Zealand's 6.4 million hectares of indigenous forest are public-owned and under permanent protection[3].

(i) Indigenous forests

Nearly twenty percent of the 6.4 million hectares of New Zealand's indigenous forest estate is in private ownership. The Forests Act 1949 promotes the sustainable management of privately owned indigenous forests. This means the forests are managed in a way that maintains their ability to provide products and amenities in perpetuity while retaining the forest's natural values. The Act does this by requiring that private owners who wish to harvest their forests can only do so if the forests are managed under sustainable management plans or permits approved by the Ministry of Agriculture & Forestry[4].

There are currently 43,000 hectares (under 1%) of indigenous forest managed under approved sustainable forest management plans and permits. However, only 0.2% (37,000 m^3) of New Zealand's total forest production is harvested from indigenous forests.

(ii) Increasing harvest levels

Based on the existing planted forests, New Zealand's available wood supply is forecast to increase from 15.9 million m^3 in the year ended 31 March 1999 to almost 30 million m^3 by 2010, an increase of around 80% in ten years.

As New Zealand's domestic market is small (population about 3.8 million) and very stable, all of the increased harvest will have to be exported in either log or value-added form.

4.2 Market conditions

Generally 1998/1999 was a tumultuous year for New Zealand's forestry products sector. The Asian crises saw trade to most Asian countries plummet. On the other hand, trade with the United States was very healthy.

(i) Market overview

The New Zealand forest industry exported $1.25 billion[5] worth of wood products to over 30 countries in 1998/1999. These exports accounted for 67% or 10.7 million m^3 of the 15.9 million m^3 harvested from New Zealand's planted forest estate in the same period. The main export destinations are Australia and the Pacific Rim countries (table 4.2.1). ECE region nations are secondary target markets.

(ii) Market access

An issue for the New Zealand forest industry during 1998/1999 was an injunction issued by United States courts on the issuing of new permits for imported logs and lumber from New Zealand, Chile and Russia. The United States timber injunction follows concerns raised by environmental groups that United States import procedures did not meet National Environmental Policy Act requirements. The United States Department of Agriculture has revised its procedures, which were submitted to the judge for a Court hearing in January 1999. The injunction was lifted by the end of January, allowing the resumption of normal trade patterns

While exporters were able to continue trading into the United States under the terms of their existing permits, this measure cost the New Zealand sector around $13 million.

One of the market access considerations facing New Zealand exporters is the physical distance to many of the country's markets. The following are examples of average number of sailing days to:

United States West coast	22 days
Japan	11 days
China	24 days
United Kingdom	38 days
Europe	40 days

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[2] Ministry of Forestry, *Indigenous Forestry - Sustainable Management*, Ministry of Forestry, Wellington, 1998.

[3] Ibid

[4] Ibid

[5] All values in US$

Table 4.2.1

Export destinations for all wood products

(by value)

	1995	*1996*	*1997*	*1998*	*1999 f*
			($ millions FOB)		
Australia	485	488	446	408	400
North Asia (1)	788	921	859	742	503
SE Asia (2)	167	218	203	193	144
United States	82	85	87	101	119
Other Asia/Pacific/Pacific Rim (3)	44	40	41	57	51
Others ECE (4)	5	7	5	5	9
Others	8	9	10	13	23
Total	1579	1768	1651	1519	1249

Source: Ministry of Agriculture and Forestry

f Forecast

(1) Japan, Korea, Taiwan, China

(2) Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand

(3) Includes India

(4) Mainly Belgium, Canada, Germany, Netherlands, United Kingdom

However, exporters are increasingly able to secure good shipping rates through a very competitive sea freight sector. This, coupled with a competitive and liberalized domestic port structure, is helping to make distance-to-market less of the hurdle it once was.

(iii) Asian situation

The Asian financial situation had a dramatic impact on the New Zealand forestry sector, which is strongly exposed to Asian markets, particularly in logs and panel products. The situation started to have an effect in the December 1997 quarter and exports were at their lowest in mid 1998. For example, in the year to June 1997 Japan, South Korea and Taiwan province of China, accounted for 52% of New Zealand's exports of wood products, but this fell to 42% in the year ending June 1998 (table 4.2.2).

Some developing markets with good potential are India, China and expansions in the United States.

TABLE 4.2.2

New Zealand wood products exports to selected countries

	Japan	*Australia*	*Korea*	*United States*	*Taiwan Province of China*	*Other*	*Total*	*Japan, Korea, Taiwan*
				($ millions FOB)				
YEAR ENDED JUNE 1997								
Logs	199	0	208	6	15	41	469	90%
Lumber	64	98	16	60	18	26	282	35%
Wood pulp	74	46	17	12	16	74	239	45%
Paper & paperboard	1	129	0	1	1	94	226	1%
Panel products	162	44	4	0	12	24	246	72%
All other forest products	42	101	4	15	1	26	189	25%
Total	542	418	249	94	63	285	1651	52%
YEAR ENDED JUNE 1998								
Logs	130	0	140	6	9	41	326	86%
Lumber	56	119	10	81	22	35	323	27%
Wood pulp	61	54	20	8	25	72	240	44%
Paper & paperboard	1	154	0	4	3	109	271	1%
Panel products	119	51	1	1	13	22	207	64%
All other forest products	33	105	5	17	1	28	189	21%
Total	400	483	176	117	73	307	1556	42%

Source: Ministry of Agriculture and Forestry

(iv) Trade groupings

New Zealand belongs to two main trade groups, Closer Economic Relations Trade Agreement (CER) and Asia-Pacific Economic Cooperation (APEC), which assist the country's international trade in forest products.

In a significant development in the trading relationship between New Zealand and Australia, the two governments replaced the New Zealand/Australia Free Trade Agreement (NAFTA) of 1965 with (CER) on 1 January 1983. Whereas NAFTA affected only certain products, CER covered free trade in all goods and most services between Australia and New Zealand. With effect from 1 July 1990 there has been free trade in all goods and most services and a single aviation market (which includes common border controls) has been progressively introduced since November 1992. The two governments are also working towards harmonization of commercial and tax laws. CER provides New Zealand-based suppliers, producers and investors with the advantages of access to a much larger combined market of 21 million people.

APEC was established in 1989 in response to the growing interdependence among Asia-Pacific economies. Begun as an informal dialogue group, APEC has since become the primary regional vehicle for promoting open trade and practical economic cooperation. Its goal is to advance Asia-Pacific economic dynamism and sense of community. Despite the financial instability of 1997-1998, the Asia-Pacific remains one of the fastest growing regions in the world. It is a major contributor to global prosperity and stability. Today, APEC includes all the major economies of the region and the most dynamic, fastest growing economies in the world. Peru, Russia and Vietnam became the latest members of the APEC community in 1998. APEC's 21 member economies had a combined Gross Domestic Product of over $16 trillion in 1996 and 45% of global trade. New Zealand is the APEC Chair for 1999.

4.3 Forestry production and trade 1998/1999

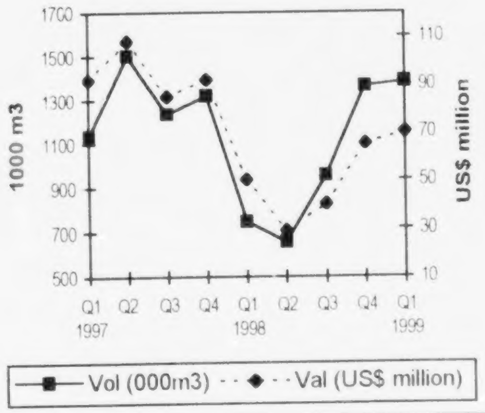
(i) Roundwood

Logs are New Zealand's main roundwood product and log exports are a fundamental part of the product mix for the New Zealand forest industry. In 1998/1999, they accounted for $225 million, or 18% of the New Zealand forest industry's total export earnings of $1.25 billion.

After huge falls in exports to Asia in the period September 1997 to June 1998, log exports picked up dramatically through to March 1999 as Korea and Japan moved to replenish depleted stocks (graph 4.3.1).

GRAPH 4.3.1

Log exports to Japan and Korea



Source: Ministry of Agriculture and Forestry

The estimated log export volume for the year ending in March 1999 fell 14% to 4.8 million m^3. However, it is expected to rise to about 5.6 million m^3 by March 2000, equal to the year ending March 1998 (table 4.3.1).

TABLE 4.3.1

Planted forest roundwood production and exports

Year ending March	*Roundwood removals*	*Log exports*
	(million m^3)	
1995	16.0	4.8
1996	16.7	5.6
1997	16.1	5.5
1998	16.7	5.6
1999 (estimates)	15.9	4.8
2000	16.8	5.6

Source: Ministry of Agriculture and Forestry

Table 4.3.2 shows the dominance of North Asia in the log export trade. However, a developing new market for New Zealand logs is India, which makes up most of the Other Asia/Pacific trade in table 4.3.2, and has gone from zero in 1997 to 322,000 m^3 in 1998/1999.

(ii) Sawn softwood

The recent market downturn in Asian markets, and particularly the significant downturn in the export log trade to Korea, has added impetus for the industry

TABLE 4.3.2

Log exports

	1995	*1996*	*1997*	*1998*	*1999*^{f}
			(1000 m^3)		
Australia	0	6	0	1	1
North Asia (1)	4678	5439	5204	5070	4269
SE Asia (2)	12	103	209	218	103
United States	71	60	54	46	27
Other Asia/Pacific/Pacific Rim (3)	0	1	1	253	323
Others ECE (4)	0	0	0	0	0
Others	0	0	0	6	71
Total	4761	5609	5468	5594	4794

Source: Ministry of Agriculture and Forestry

f Forecast

(1) Japan, Korea, Taiwan, China

(2) Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand

(3) Includes India

(4) Mainly Belgium, Canada, Germany, Netherlands, United Kingdom

to diversify further into value-added products. This has been particularly true for sawn timber, with the Australian and United States sawnwood markets in particular being strong through 1998/1999 (table 4.3.3).

Most of the production growth has come from existing plants by increasing the number of shifts worked and by mill upgrades, such as installing more efficient machinery and improving wood flow. While statistics are not gathered on kiln-drying capacity, kiln suppliers have reported a large increase in the number of new installations and upgrades during 1998.

The strong economies of Australia and the United States supported increased house construction activity during 1998/1999, which helped boost New Zealand's sawn timber exports into these markets. For example, new housing starts in Australia rose by 15 percent to 147,300 units in 1997/1998[6]. Also helping to improve sales into the United States is the development by several New Zealand sawmillers of strategic alliances

TABLE 4.3.3

Sawn softwood production and exports

	1995	*1996*	*1997*	*1998*	*1999*^{f}
			(1000 m^3)		
Production	2870	2849	2967	3157	3147
EXPORTS					
Australia	460	317	305	325	385
North Asia (1)	356	447	466	528	422
SE Asia (2)	29	59	75	96	111
United States	157	137	147	205	264
Other Asia/Pacific/Pacific Rim (3)	22	18	16	16	23
Others ECE (4)	2	1	1	1	1
Others	3	5	2	2	33
Total Exports	1029	984	1012	1173	1239

Source: Ministry of Agriculture and Forestry

f Forecast

(1) Japan, Korea, Taiwan Province of China, China

(2) Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand

(3) Includes India

(4) Mainly Belgium, Canada, Germany, Netherlands, United Kingdom

TABLE 4.3.4

Wood pulp production and exports

	1995	*1996*	*1997*	*1998*	*1999*^{f}
			(1000 tonnes)		
Production	1360	1405	1377	1412	1417
EXPORTS					
Australia	93	100	83	95	110
North Asia (1)	366	356	381	373	386
SE Asia (2)	156	125	189	125	117
United States	10	19	23	16	30
Other Asia/Pacific/Pacific Rim (3)	15	4	6	26	17
Others ECE (4)	3	4	2	3	3
Others	0	1	3	2	2
Total Exports	643	609	687	640	665

Source: Ministry of Agriculture and Forestry

f Forecast

(1) Japan, Korea, Taiwan Province of China, China

(2) Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand

(3) Includes India

(4) Mainly Belgium, Canada, Germany, Netherlands, United Kingdom

and joint ventures with United States sawnwood suppliers and distributors.

(iii) Wood pulp

Total wood pulp production in 1998/1999 was 1.4 million tonnes (table 4.3.4). Wood pulp production is carried out at six mills, all on the North Island, four of which also produced paper and paperboard. These six mills had an installed capacity as of March 1998 for an estimated output of 1.6 million tonnes of wood pulp per year. Plant upgrades at two mills during 1998 (Carter Holt Harvey at Kinleith and Fletcher Challenge Paper at Kawerau) will ensure that capacity is enhanced during 1999.

The biggest export markets for New Zealand's wood pulp are Japan (232,000 tonnes in 1998/1999) and Australia (110,000 tonnes). Indonesia is also a large market which took 141,000 tonnes in 1996/1997 and 90,000 tonnes in 1997/1998. Because of Indonesia's recent financial problems, this fell to 76,000 tonnes in 1998/1999, but is expected to pick up again over the next couple of years.

TABLE 4.3.5

Paper and paper products production and exports

	1995	*1996*	*1997*	*1998*	*1999*^{f}
			(1000 tonnes)		
Production	876	893	877	880	815
EXPORTS					
Australia	210	211	186	174	205
North Asia (1)	2	3	27	19	39
SE Asia (2)	119	115	132	202	167
United States	2	2	2	4	3
Other Asia/Pacific/Pacific Rim (3)	20	19	27	24	27
Others ECE (4)	0	0	0	0	2
Others	0	1	0	3	4
Total Exports	353	351	374	426	447

Source: Ministry of Agriculture and Forestry

f Forecast

(1) Japan, Korea, Taiwan Province of China, China

(2) Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand

(3) Includes India

(4) Mainly Belgium, Canada, Germany, Netherlands, United Kingdom

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[6] ABARE, *Outlook 99*, ABARE Canberra, 1999

Generally, New Zealand pulp prices follow international cyclical trends dictated by demand and capacity fluctuations.

(iv) Paper and paper products

Total paper and paperboard production (which includes newsprint) in 1998/1999 was 815,000 tonnes. Table 4.3.5 shows production and export figures. Six mills produce paper and paper products and in March 1998 they had an installed capacity of 1 million tonnes per year.

Newsprint is produced at one mill (Fletcher Challenge Paper at Kawerau), which generally accounts for 40-45% of the total. Kraft linerboard accounts for most of the balance, although small quantities of tissue and fine paper are also produced.

While Australia is the largest export market, the printing and publishing industries in Hong Kong (88,000 tonnes in 1998/1999) and Singapore (27,000 tonnes) are significant consumers as well. China is also a large and expanding customer, going from 16,000 tonnes in 1994/1995 to 30,000 tonnes in 1998/1999.

(v) Wood panels

This section covers veneer, plywood, particle board and fibreboard production. Table 4.3.6 shows March year production and export details. Estimated annual production capacity (as at March 1998) of the wood panel industry was 1,745,000 m^3, as follows:

- Veneer: nine mills, seven of which further processed the veneer into plywood or other wood-based products, with a total of 377,000 m^3 capacity per year;
- Plywood: six mills, with 255,000 m^3 total capacity per year. Plywood includes laminated veneer lumber (LVL) products;
- Particleboard: four mills, with a total capacity of 331,000 m^3 per year;
- Fibreboard: five mills with 782,000 m^3 per year total capacity. This product is mainly medium density fibreboard (MDF).

TABLE 4.3.6

Wood-based panels production and exports, 1995 to 1999

	1995	*1996*	*1997*	*1998*	*1999*^{f}
			(1000 m^3)		
Production	1252	1212	1252	1291	1242
EXPORTS					
Australia	154	129	121	149	122
North Asia (1)	406	413	374	374	333
SE Asia (2)	57	65	68	63	75
United States	1	0	1	0	8
Other Asia/Pacific/Pacific Rim (3)	8	7	6	8	17
Others ECE (4)	0	0	0	2	20
Others	1	3	3	7	15
Total Exports	627	617	573	603	590

Source: Ministry of Agriculture and Forestry

f Forecast

(1) Japan, Korea, Taiwan Province of China, China

(2) Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand

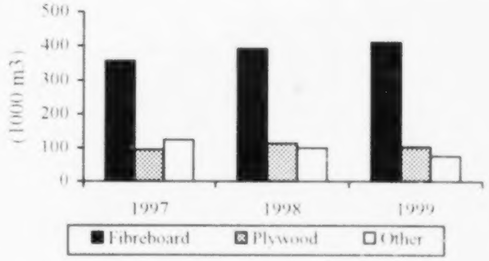
(3) Includes India

(4) Mainly Belgium, Canada, Germany, Netherlands, United Kingdom

Fibreboard, which is mainly MDF, accounts for the largest part of the country's production and export of wood panels (graph 4.3.2). Japan is the biggest market for panel products, particularly MDF, which is used extensively in the housing componentry and

GRAPH 4.3.2

Wood panel exports, 1997 to 1999



Source: Ministry of Agriculture and Forestry furniture industries. Exports of panel products to Japan were particularly affected by that country's recent financial problems, with volumes falling from 297,000 m^3 in 1997/1998 to 246,000 m^3 in 1998/1999.

(vi) Other wood products

New Zealand exported almost $157 million worth of miscellaneous wood products in 1998/1999. Australia is the major market (table 4.3.7) with the main items being speciality papers, furniture and manufactured packaging products (e.g. egg cartons). The most important items going to North Asia are wood chips and kitset houses. Engineered wood products and mouldings are the principal products going to the United States, which is an expanding market with great potential for these items.

TABLE 4.3.7

Exports of other wood products

	1995	*1996*	*1997*	*1998*	*1999*^{f}
			($ millions FOB)		
Australia	99	102	101	94	84
North Asia (1)	34	56	49	42	35
South-East Asia (2)	8	12	10	5	5
United States	10	16	14	17	12
Other Asia/Pacific/Pacific Rim (3)	14	13	10	9	8
Others ECE (4)	3	4	3	3	2
Others	5	4	5	8	10
Total exports	173	207	192	178	156

Source: Ministry of Agriculture and Forestry

f Forecast

(1) Japan, Korea, Taiwan Province of China, China

(2) Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand

(3) Includes India

(4) Mainly Belgium, Canada, Germany, Netherlands, United Kingdom

CHAPTER 5

TRADE RESTRICTIONS AND THEIR FUTURE[1]

Highlights

- Access to forest products markets is influenced by a wide range of institutional measures which restrict trade, either overtly or in many cases covertly.
- Tariff levels have been declining steadily but still remain high for some ECE region markets and for some trading partners.
- Non-tariff barriers restrict trade in many ways, particularly through health and technical standards; unlike tariffs, some non-tariff barriers are increasing.
- The question of whether certification of sustainable forest management is, or will be, a barrier to trade is widely debated.
- The exact effect and direction of impediments to trade are difficult to predict, but they merit vigilance.
- Moves are underway to begin another round of multilateral trade negotiations for forest products.
- The implications of further trade liberalization for individual Timber Committee member countries will vary depending on whether they are exporters or importers.
- There is considerable opposition by many environmental groups to further forest products trade liberalization.

Secretariat introduction. The secretariat would like to thank Dr. I.J. Bourke for this timely synopsis of tariff and non-tariff barriers and their effects on the ECE region forest products trade. The special topic of the 57th Timber Committee Session "Trade and the Environment" will focus on a number of these same issues. Readers who wish more information on these subjects are encouraged to obtain the author's other publications.

5.1 Introduction

Trade in forest products has become increasingly global in recent years, with the number of countries exporting and importing various forest products growing. In addition the ownership of forests and processing plants, concession rights, and management contracts for such things as harvesting, are increasingly held by foreign companies. As a result the rules and conditions of forest management and trade are being set or influenced by foreign interests. Clear examples of this are the current efforts on criteria and indicators of sustainable forest management, global conventions on bio-diversity, and proposals for some type of global forest instrument, such as a forest convention[2].

With this increasing globalisation has come a resurgence in interest in questions of market access and trade protectionism. Increased trade restrictions or policies which have the potential to restrict trade have been promoted by a number of developing countries and particularly by environmental non-governmental organisations (NGOs), as a means of solving these problems. Some see protectionism as one of the main obstacles facing international trade, arguing that trade levels and the profitability of exporting could be substantially increased if exporters were not faced with a series of discriminatory import barriers against their forest products. Others however see increased trade as being against the sustainability of the forests, and consider that protectionist practices may be an essential part of overcoming the pressures on the forests. The subject of trade restrictions is thus proving to be one where views and positions vary considerably. Discussions at the Intergovernmental Forum on Forests (IFF) on the subject of trade and the environment have highlighted the difficulties.

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[1] By Dr. I.J. Bourke, Senior Forestry Officer, Forest Harvesting, Trade and Marketing Branch, Forestry Department, FAO
Viale delle Terme di Caracalla, I-00100 Rome, Italy
Tel.: +3906 5705 4174, Fax: +3906 5705 5618,
e-mail: Jim.Bourke@fao.org

[2] More discussion on these issues may be found in the FAO publication "State of the World's Forests 1999" (FAO Rome 1999).

This section discusses a number of issues related to trade restrictions. It provides a summary of the situation and trends in trade restrictions of significance to Timber Committee member countries. It reviews the various restrictions that exist, assesses the extent to which they are a problem, indicates their trends, and finally highlights current interest and debate on a follow-up round of multilateral negotiations. It should be seen as a brief background to the subject, rather than a comprehensive coverage[3].

5.2 The question of market access

Access to markets is influenced by a wide range of formal trade restrictions. These are institutional measures which restrict trade – either overtly or in many cases covertly. In particular, this means government-imposed measures which are either deliberately aimed at restricting or distorting trade patterns, or do so inadvertently.

In addition to these formal measures there are, however, some measures that do not strictly fit into this category, such as many connected with environmental issues. These may be considered as trade impediments rather than formal barriers, since, although not clear restrictions, their impact or potential impact is very similar to formal trade measures – and in many cases their intention is the same.

The formal trade restrictions have been the focus of the international multilateral trade negotiations held under the auspices of the General Agreement on Tariffs and Trade (GATT). The most recent of these 'Rounds' of negotiations was the Uruguay Round (UR) which was formally completed in 1994[4] and which, in addition to the moves on reducing restrictions, also resulted in the conversion of GATT to a new global trade institution, the World Trade Organization. As well, there have been many bilateral and regional negotiations which have also been addressing, amongst other things, the subject of trade restrictions, such as those of the Association of South East Asian Nations (ASEAN)[5], the Asia-Pacific Economic Co-operation (APEC)[6], the expansion of the European Union (EU), the North American Free Trade Agreement (NAFTA), and the Mercosur Agreement (Southern Common Market).

The Uruguay Round negotiations resulted in schedules for reducing tariff barriers, together with a number of special agreements which were aimed at reducing the effects of many Non Tariff Barriers (NTBs). Two agreements of special interest to forestry are the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) which aims to improve conditions surrounding inspection and quarantine, and the Agreement on Technical Barriers to Trade (TBT) which seeks to limit the use of technical regulations and product standards for other than legitimate health, safety, product quality and environmental protection purposes.

The SPS and TBT set out rules for bringing national standards into conformity with international norms so as to facilitate trade. The SPS Agreement obligates governments to implement rules applying to food and plant health and safety only to the extent necessary to protect human, animal or plant life or health. The TBT Agreement sets out procedures for ensuring that technical regulations and standards – including packaging, marking and labeling requirements – do not create "unnecessary obstacles to international trade". The TBT seeks to ensure that product standards are not used as disguised protectionist measures, and to reduce the extent to which they act as barriers to market access.

5.3 Trends in tariffs

(i) Current situation

Tariff restrictions have been declining steadily for a number of years. In recent years tariff barriers have declined in most of the main import markets. The extent of the decline differs with the market and the specific product, but few developed country tariffs are now particularly high for most forest products. This is shown for selected countries in the table below which provides a general indication of rates for selected countries (table 5.3.1). With the exception of some

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[3] A detailed coverage can be found in L.J. Bourke and Jeanette Leitch, "Trade Restrictions and Their Impact on International Trade in Forest Products" (FAO Rome 1998).

[4] For full details see Barbier, E.B. (1996) "Impact of the Uruguay Round Agreement on International Trade in Forest Products", FAO and Bourke, I.J. (1996) "The Uruguay Round Results - an Overview". In *Tropical Forest Update*, ITTO, Vol. 6 (2) September.

[5] ASEAN comprises Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Brunei and Vietnam.

[6] APEC comprises Malaysia, Singapore, Thailand, Indonesia, Brunei, Philippines, Australia, Canada, Republic of Korea, Japan, New Zealand, United States, China, China Hong Kong, Taiwan Province of China, Papua New Guinea, Mexico, Chile, Peru, Russian Federation and Vietnam.

TABLE 5.3.1

Current tariff rates in selected importing countries

(% ad valorem)

	Australia		*European Union*		*Japan*		*United States*		*China*	*Republic of Korea*	*Thailand*
	MFN	*GSP*	*MFN*	*GSP*	*MFN*	*GSP*	*MFN*	*GSP*			
Wood in rough (logs)	0.0		0.0		0.0		0.0		2.0	1.0	1.0
Sawnwood	0-5	5(C)	0-2.5	0.0	4.8-7(C)	0.0	0.0		3.0	5.0	1.5
					7.4(NC)	0.0					
Mouldings, etc.	5.0	5.0	3.2	0.0	4.1-6.3	0.0	0-2.7	0.0	20.0	8.0	20%
Plywood	15.0	10.0	7-10	3-3.7	7.5(C)		0-15.2(C)	0.0	15.0	15.0	20%
					7.4-12(T)		8.0(NC)	0.0			
Joinery	5.0		2-4.2	1.4-2.9	2.8-6.1	0.0	0-6.4	0.0	10.0	8.0	20%
Wood furniture	15.0	10.0	2.2	0.0	0.0		0-7	0.0	22.0	8.0	30.0

Source: Country tariff schedules; *Bulletin International des Douanes*.

Notes: (Data as at 1997-early 1998 in most cases) C = coniferous; NC = non-coniferous; T = tropical.
GSP = Generalised System of Preferences; MNF = Most Favored Nation.
These rates should be taken as a guide only as some may have recently been reduced further and they are often subject to special rules, conditions and limitations.

products in some markets, tariffs for forest products in developed countries are generally less than 5% for most products. However, rates for some products are still high (in the range 10-15%). In particular this is true for wood-based panels (especially plywood), builders' woodwork and furniture. Further, even a relatively low duty can add a substantial extra cost and give domestic producers considerable protection. Since the import duty is usually charged on the c.i.f. price the additional costs create marketing difficulties for distant suppliers, particularly in the competitive basic commodity products where price competition is greatest, and in periods of weak demand when competition is high. Tariffs in *developing* countries have also been declining rapidly, although many are still higher than in the main developed countries.

(ii) Future trends in tariffs

Tariffs will continue to decline as the results of the Uruguay Round are implemented. Tariffs in developed countries on many products will be reduced to very low levels, or completely eliminated. In developing countries reductions will result, but not to the same degree. The gains will be country-specific, being limited to certain products in particular markets, with some countries continuing to maintain high tariffs on some, but not all, of their products. The extent and the speed of the reductions will vary considerably between countries and also products, and in some cases the phased reductions may take up to 15 years to be fully achieved. In the developed countries paper and paperboard products in the main importing countries – United States, Canada, EU and Japan – together with some smaller importers, will have tariffs completely phased out over an 8-10 year period. Similarly, major importers such as the European Union, Japan and the United States will eliminate tariffs completely on furniture over the next 8-10 years. Wood-based panels (especially plywood) and some value-added products will continue to face greater tariffs than most other products.

One benefit of the tariff reductions will be that tariff escalation, which occurs when tariff rates increase as the degree of processing increases (for example, where logs are duty free, sawnwood faces a low tariff, while plywood has a higher rate still), will be reduced in the main developed country markets. In addition to the reductions most tariff rates will be bound. That is, countries will place an upper limit on the specified tariff so that tariffs will not be able to be increased above the bound rate.

As well as the influence of the GATT/WTO negotiations, there are bilateral and regional negotiations which will also have an important influence. The impacts of such moves, if implemented, may be very significant because they are regionally oriented and will build on the Uruguay Round results. Of note are the efforts in the Asia-Pacific region of APEC, which is seeking to speed up the rate of trade liberalisation. It has set a target of free trade among its members by about 2010 for the developed nations, 2015 for the newly industrialized countries, and 2020 years for the developing countries.

5.4 Trends in non-tariff measures (NTMs)

(i) Current situation

In addition to tariffs, a wide range of NTMs exists. These include a host of different rules and procedures, ranging from health and technical standards to measures influencing prices. NTMs are much more complex and difficult to recognize and therefore assess than tariffs, especially in quantitative terms. They cover a very wide range which in some circumstances can have restrictive effects while in others cases do not. Even the same mechanisms can vary widely between different countries, depending on the way in which they are implemented and the exact details of the regulation. In some cases they may be legitimate protection measures, in others the same restrictions may be excessively restrictive and make importing difficult. There are also cases where the trade protective effects are unintentional. At the very least, though, they make exporting more difficult, especially for smaller and less experienced exporters. In these conditions marketing becomes a more complex, costly and challenging task.

(ii) NTMs which may act as barriers to trade

Specific limitations on trade: quantitative restrictions; export restraints; health and sanitary regulations; licensing; embargoes; minimum price regulations, etc.

Charges on imports: tariffs; variable levies; prior deposits; special duties on imports; internal taxes, etc.

Standards: industrial standards; packaging, labeling and marking regulations, etc.

Government interventions in trade: government procurement; stock trading; export subsidies; countervailing duties; trade diverting aid, etc.

Customs and administrative entry procedures: customs valuation; customs classification; antidumping duties; consular and customs formalities and requirements; and sample requirements.

(iii) Some of the NTMs which have most effect on forest products

Phytosanitary and technical regulations and standards. These present some problems in specific situations. In particular, regulations and standards which relate to environmental issues are important issues for forestry. While few of the standards and codes discriminate specifically against imports and are therefore not strictly trade barriers, many do create much greater problems for foreign producers than domestic producers. Examples of this type of restriction include: restrictions on wood panels which release formaldehyde from the glues with human health risks, restrictions on certain timber preservation processes and materials, controls on processing methods (for example, in the bleaching of pulp where there have been widespread moves to encourage or force companies to replace chlorine, which produces extremely toxic by-products, with other more environmentally friendly bleaching agents), and packaging regulations. Most countries in the world have official building codes and standards. These are specified in considerable detail, and products which are to be used in certain end-uses must meet their requirements. The same is true of phytosanitary regulations. The most common trade complaint against standards and regulations is that their rules and their administration are excessively restrictive, and go well beyond the level needed to ensure adequate protection.

Most are of considerable, and growing, significance in European countries. Whether they are in fact being used as trade barriers can be very difficult to determine. Most are obstacles to overcome, rather than deliberate attempts to block trade. It does, however, seem likely that in some cases the regulations and/or the way in which they are administered, are excessive. Some have resulted in major trade disputes between countries.

Export restraints. Although *import* restrictions are the most obvious barriers in forest product trade, *export* restrictions are of considerable significance for trade. Export restrictions are common in most developing countries and in some developed countries, and have had a major impact on world trade patterns for some forest products – notably logs and plywood. Export controls include total bans, export quotas, or selective bans based on species, indirect quantitative restrictions due to controls on harvest levels, direct charges such as export taxes or export levies, indirect charges in the form of royalties and reforestation levies, and administrative controls such as permits and licenses. They may be imposed primarily as a revenue-generating instrument, especially if this method of collection is more efficient than other instruments to capture resource rent. Permits and licenses may simply be information and quality control instruments or their intent may be to restrict export quantities, especially if they are conditional upon factors other than product attributes.

Restrictions on log exports have traditionally been associated with promotion of the domestic processing industry in timber producing countries, mainly for export rather than domestic demand. Other aims range from attempts to increase the financial return to the country, efforts to ensure adequate wood supplies for the domestic wood-working and other wood-based industries (especially in competition with overseas log buyers), through to attempts to protect forests from overuse.

Log export controls have increased markedly in recent years, especially as many tropical countries have attempted to retain logs for domestic processing, or as is the case more recently, to reduce harvesting levels. Controls on harvest levels are in place or scheduled in many countries. Since export bans are technically illegal under Article XI of GATT, many countries are turning to other measures – ranging from export taxes to permits and licenses, in place of direct quantitative controls.

One interesting issue in this respect is the dilemma faced by some countries over export controls, logging bans, and similar measures. From one point of view some countries favor these controls, while at the same time being against them for other countries. For example, countries with over-exploited forest resources Vietnam and Mongolia have introduced log export controls as a means of limiting the harvest of their resources and thus reducing the pressure on their forests. However they wish to meet the requirements of their industry and the market by importing wood from other countries. Their access to logs from nearby countries is however restricted by similar restrictions in Laos, Cambodia and China. These countries have log export controls, and logging bans in place in order to protect their own forests.

Quantitative restrictions. Overall quotas, quotas allocated to a specific country or a quota limiting eligibility for a particular tariff rate (e.g. the Generalized System of Preferences (GSP) rate) exist in a limited number of cases. In general their use has declined, but for some products in some markets they still create difficulties. For example the EU imposes import quotas on board and panel products. It also has tariff quotas or tariff ceilings on newsprint, fibre-building boards, builders' woodwork and some furniture items.

United States and Canada Softwood Lumber Agreement is an example of a quantitative restriction stemming from a long-running dispute over the pricing of provincially-owned Canadian stumpage. In 1994, part of the "settlement" of this dispute was the imposition by the United States of a duty-free quota on Canadian imports of softwood lumber. Above-quota volumes are taxed. Even this "solution" has not defused the situation, and disputes surface regularly. Recent examples are a request by the United States for arbitration on a British Columbia decision in June 1998 to lower stumpage rates. More recently the United States has re-classified pre-drilled stud lumber into a tariff category covered by the quota. This occurred after Canadian processors sought to move products to non-quota items by carrying out what the United States saw as minimal processing before export. In the most recent move the same has been done for rougher headed lumber and notched studs after exports of these from Canada rose dramatically.

Other measures imposed by importers which can have restrictive effects depending on the way in which they are implemented are: import licensing procedures and customs procedures; these can often provide domestic producers with protection from imported products. Domestic policies such as subsidies, financial assistance, tax concessions, export encouragement schemes, etc., can substantially improve the competitiveness of domestic producers in both their own domestic market and export markets, and are often used specifically for these purposes. Assistance can take many forms, but often involves reducing production costs through low stumpage fees, planting subsidies and tax concessions, assisted transport, the provision of infrastructure such as roads, etc. They occur in many countries, notably in Europe.

5.5 Future trends in NTMs

Like tariffs, some NTMs have been declining, but others have been increasing. It is difficult to say how the situation will change since they are much more complex and difficult to predict. Individually restrictions do not appear to be of major significance, but they present much greater difficulties when a number of measures exist together, and where tariffs are also present. This is likely to remain the case. Continuing efforts are being made to reduce, or at least limit their expansion. Many will be subject to more scrutiny and control than in the past, and there should be a greater degree of discipline imposed, and more uniformity in the way in which countries interpret and implement various regulations. If past actions are anything to go by, NTB's will continue to require close attention.

5.6 Trade impediments

(i) Current situation

In addition to formal restrictions, there are many measures which may be considered to be impediments to trade rather than formal trade restrictions as discussed above. They are actions which are either legal under GATT/WTO rules, or largely outside the boundaries of existing international agreements *as presently defined*. They usually have no direct links to official government regulations, though in a number of instances they may be unofficially encouraged by governments. Nevertheless, they have many similarities to formal restrictions, often have a similar effect, and in many cases their intention is the same – to restrict trade.

The trade impediments of most significance are related to environmental issues. Some of the policies related to environmental issues concern transport, processing and consumption, including pollution from processing plants; the use of polluting materials in the production processes, energy requirements for processing, patterns of excessive or uncontrolled consumption; and problems of waste disposal. The most recent, however, are measures aimed at limiting trade to forest products made from wood coming from a sustainably managed forest resource. Examples are certification and ecolabelling, and restrictions or bans and boycotts by local municipalities and the retail trade.

Bans and boycotts: In parts of Europe, the United States, and to a limited extent in some other developed countries, restrictions or bans on the use of timber have been put in place by regional and local councils. Some retailers and timber traders have taken decisions to cease handling certain products and some unknown level of consumer resistance to buying wood products exists. The restrictions are either absolute or linked to restricting the use of timber to "approved" supplies. The main target, either implicitly or explicitly, has usually, but not exclusively, been tropical timber. In Europe actions of this type have been especially prevalent in Germany, the Netherlands, and the United Kingdom. An important, and as yet unresolved question, is the extent to which these actions are, or may be, a restriction on trade by discriminating either intentionally or unintentionally amongst producers.

While supporters of these restrictions argue they are legitimate moves taken by autonomous bodies, there is considerable concern by exporters and governments in exporting countries that they are in fact NTBs. Certainly they have an impact on market access. Many appear to conflict with multilateral obligations of governments. Various questions remain as yet unresolved. One important issue is the extent to which these do, or may, restrict trade. Another is whether actions taken for environmental reasons which act as trade barriers are legitimate within internationally agreed trade rules, such as under Article XX of GATT/WTO which allows certain measures which would otherwise be against its rules, to be taken "to protect human, animal or plant life or health".

Closely allied to the above is the situation where retailers and timber traders in some countries have as a group "voluntarily" agreed to only handle products that come from well-managed resources (i.e. buyers' groups being promoted by WWF). Although basically voluntary, and only applying to those who have become members of the group, they do have many similarities with formal trade restrictions, in that they represent group action to deliberately restrict sales of certain (mainly imported) wood products. To date buyers groups have not had a significant impact on the market because of the limited extent to which they have been taken up, and also a lack of supplies of approved wood. They are most active in the United Kingdom through the WWF "95 Plus Group".

Certification of forest products: This is currently an important issue for forestry. The aspect of interest here is whether it does, or might, act as a trade barrier. Although many supporters argue that certification is not a trade restrictive practice, it has many of the characteristics of one. In fact this is to a degree the very goal that it is trying to achieve – to encourage consumers to discriminate in favour of certain products (and therefore against others). Even though most forestry certification schemes seem likely to be voluntary they may in reality be compulsory since some important retailers may be unwilling to carry uncertified products (as is occurring in the United Kingdom).

Certification and eco-labelling activities are still in their infancy, with main interest being in Europe, especially Germany, the Netherlands and the United Kingdom, where environmental groups are active and where some retail interests see a potential market advantage from providing certified products. Exporting countries such as Canada, Sweden, Finland, Malaysia and Indonesia are actively developing their own certification schemes, both as a defensive market strategy and a means of improving their forest management practices. The effect on trade so far has been limited, but a considerable degree of market uncertainty is being generated in many markets. Both the range of products and the volume of trade covered by operational certification schemes is insignificant in global or regional terms, being less than 0.5% of the wood entering international trade and a negligible proportion of total wood used for industrial purposes.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement which deliberately has trade-restrictive elements. It uses a system of permits issued by designated authorities in member countries to regulate international trade in endangered species. Species, sub-species or populations may be listed in one of three appendices to the Convention and as a result face varying degrees of trade restriction. Appendix I essentially prohibits commercial trade. Appendix II requires an export permit issued by the authority in each exporting country. Appendix III requires commercial trade to have export permits for the country(ies) listing the species, or a certificate of origin from other countries.

CITES has surfaced as a controversial issue for forestry, due to attempts by some developed countries, strongly supported by conservation groups, to have a number of commercially-important forestry species (most notably mahogany) placed in CITES appendices. Forestry and trade interests are concerned that CITES is being used unfairly to stop or limit trade, and that the mere fact of having a species listed – even in Appendix III – will have a negative impact on trade in that species.

(ii) Future trends in impediments to trade

While formal barriers are set to come down, impediments to trade will continue to exist and seem likely to grow in significance. It seems clear that under certain circumstances they will hamper or restrict trade. Those aimed at restricting trade to the products that come from a sustainably managed forest resource may have the greatest impact.

Restrictions or bans by local municipalities, the retail trade, and in some cases by national governments, seem likely to have a growing effect on trade unless the conditions surrounding them are changed. Their impact will vary considerably with the market, the product, and also the producing country concerned.

The exact effect and direction in which these will move is difficult to predict with any real certainty. It will be heavily dependent on which markets institute them, the degree of support that is given by consumers, legislators and traders, and the extent to which harmonisation or at least mutual recognition of different practices is achieved. While many have valuable objectives, they may also have undesirable trade effects.

5.7 Where to from here for reductions?

Currently there are moves underway to launch a new round of WTO multilateral trade negotiations in late 1999 (the so-called "Millennium Round"). Follow-up negotiations covering agriculture and services were built-in to the Uruguay Round and as a result must begin by the end of 1999. The precise nature of these negotiations is, however, undecided at this point. A decision on whether to proceed on a new round and what it would include will be made at the WTO's Third Ministerial Meeting in Seattle (November 30 and December 3, 1999).

There is strong support for the idea of expanding the negotiations beyond agriculture and services, to address other areas, and to include some new areas not covered in the Uruguay Round. This support is not total, however, a number of developing countries believe that the Uruguay Round agreements should be fully implemented before any new round is contemplated. They fear that they will lose out further if new subjects that are against their interests are introduced. In principle though, the major trading powers (Japan, the United States, the EU) and most other important trading nations (both developed and developing) support the idea of a "comprehensive" new round of negotiations which would cover a number of trade sectors. This would allow countries to make cross-sectoral trade-offs, i.e. balance offers in one sector with gains in others.

The feature of cross-sectoral trade-offs is important for forestry. Multilateral negotiations which cover many sectors and many individual products invariably result in governments concentrating on getting reductions in areas of most importance to the country, often at the expense on some other sectors. Concessions may be given on "less important" sectors to achieve gains in others. In this process forest products often receive little focus when compared with some other sectors. As an example, industry interests in the United States have been arguing that in previous negotiations their government negotiated away protection on paper and wood products in order to win concessions in other areas[7].

There are varying views on what topics should be covered in a new round, how widely the talks should be expanded, whether new areas should be included, how long any negotiations should last, and how the negotiations should actually be conducted. Suggestions for coverage include industrial tariffs, e-commerce, regional agreements, labor standards, investment, competition policy, and the environment. Not all of these have significance for forestry however.

Further efforts to cut tariffs are widely supported. Many countries such as the United States, Japan, and European countries (both western and eastern), Chile, New Zealand, Australia and Korea are supporting negotiations on industrial tariffs. APEC is even pushing an "accelerated tariff liberalisation initiative" which proposes the elimination or reduction of tariffs on global trade in a number of product areas, including wood products. This is part of APEC's Early Voluntary Sectoral Liberalisation efforts which seek to speed up tariff reductions in nine sectors, including forest products, with a target of zero tariffs by 2004 at the latest[8]. Both the EU and Japan (which is in fact a member of APEC) do not support accelerating the reduction of tariffs on wood products.

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[7] Comments by forest industry representatives to the United States International Trade Commission hearings in May 1999.

There is less agreement on other topics, especially on whether and how issues connected with the environment might be covered. Inclusion of them in a new round might result in a clearer focus on aspects that are of interest and concern to forestry. As mentioned earlier, questions which are of major interest to forestry include: whether actions that are being taken for environmental reasons and which act as trade barriers are legitimate within internationally agreed trade rules; what exceptions are possible under Article XX; and whether boycotts or bans taken by sub-national governments are legal under GATT/WTO.

There is considerable opposition by many environmental groups to further forest products trade liberalisation. They believe that liberalisation of trade will increase consumption, dilute rather than improve forest management standards, and dismantle environmental regulations. They argue that it will increase the risk of pests and diseases being introduced into countries which currently have tight restrictions. They also are concerned that it will lead to controls on the use of eco-labelling and certification.

5.8 Implications of further trade liberalisation

The implications of further trade liberalization for individual Timber Committee members will vary depending on whether the member is primarily an exporter or an importer, on the products traded, and the countries traded with. The impact will also depend on what activities are being undertaken – growing, trading, retailing etc.

Assuming that the next round of multilateral trade negotiations will include forestry, and that the issues being supported by most countries will be included, the overall impact for forestry should be very much for continued progress in the current direction. That is, further reductions or complete elimination of many tariffs and quantitative restrictions, and further progress on strengthening the rules surrounding non-tariff measures to limit or remove their ability to be used as NTBs. In this, forestry would benefit most from the efforts that will occur in the SPS and the TBT Agreements, with slight benefits from improvements in other agreements covering subsidies, the use of anti-dumping and countervailing duties, and customs valuation and licensing procedures. Further reductions in import tariffs will open up markets, but since most rates are currently not high, the effect will not be great. Some products such as plywood, builders woodwork and furniture will remain more difficult. Since NTMs are more difficult to recognize and to monitor, they may be increasingly used to compensate for the declines in tariffs, and therefore need close attention.

Restrictions connected with environmental issues may grow in significance. This area will involve the greatest changes, the greatest disagreements, and the greatest impacts for member countries. In some areas it may result in increased trade tensions. As a consequence they will continue to require considerable attention, and all interested parties will need to keep fully aware of any moves that may affect them. Environmental issues are, potentially at least, the most disruptive measures that may affect trade, especially for the developing countries. They also have the potential, if used soundly, to contribute significantly to improved trade and environmental conditions. Many of the environmental restrictions are increasing, so they will be more of a problem in the future. Many will hamper or restrict trade, though in the short term their effect may be largely limited to selected market segments and countries.

Members will need to develop effective strategies to cope with them, and above all will need to evaluate their impacts carefully and to remain flexible. Sound marketing strategies combined with effective forest management will be essential. Group action will become increasingly important to address many of the issues. In particular certification will require attention until its effects, the interest (or not) in it by consumers, retailers and producers, and the relationship between different certification systems, becomes clearer. Certification will increase but the exact extent of its growth and its impacts are very difficult to predict. Most attention will continue to be focused on Western Europe (with limited attention in southern countries such as Spain, Italy and to some extent France), and to a lesser degree North America and Oceania. Major import markets in Asia (e.g. Japan, Republic of Korea, People's Republic of China, India, Thailand), the Middle East, and Latin America will show limited interest.

As usual in trade, individual countries and companies will be impacted differently. It will therefore be essential to monitor changes and adapt to changing conditions. An important action is to improve the management of the forests. It will always be in the long-term interest of all sections of the industry –both for trade and land-use reasons– to manage the resource well.

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[8] These are: environmental goods and services, fish and fish products, forest products, toys, chemicals, medical equipment and instruments, energy, gems and jewellery, telecommunications mutual recognition arrangement.

CHAPTER 6

FOREST PRODUCTS IN THE ELECTRONIC MARKET PLACE

Highlights

- The Internet, as a new market channel, has the potential to change the traditional way forest products are traded.
- Electronic marketplaces allow customers to search for suppliers and vice versa.
- Companies use the Internet to enhance corporate image, improve customer and supplier relations, and to improve competitive advantage.
- Many forest products companies now have individual homepages on the Internet, however few forest products are currently traded electronically.
- Concern for security is the primary reason for reluctance to adopt electronic commerce.
- *Extranets* offer additional advantages of improved, secure, communication with a company's customers, suppliers, vendors, shippers and other partners.

Secretariat introduction. Information for this chapter came from a variety of sources, most of them from the World Wide Web (WWW), but also from a study by Dr. Richard Vlosky[1] and a study by Mr. Jarkko Taskinen[2].

6.1 Introduction

Like companies in other sectors, forest products companies have used electronic means to streamline and improve their trading relations for some time. For instance many use electronic data interchange (EDI) to communicate internally and with customers and suppliers. Many now have websites to advertise themselves and their products. This chapter concentrates on a more specialized feature, the use of the Internet for trading – finding buyers and sellers, agreeing on prices and terms of sale, etc.

A new marketing channel, the trade of wood products via the Internet, has made considerable strides since being mentioned in the last two *Annual Market Reviews*. While many forest products companies have established websites on the WWW, a homepage alone is an advertisement of the company and its products and services, and an invitation to communicate. In addition to the sawn hardwood trading site mentioned last year (and below), today many more sites exist where sellers offer their stocks of wood products and buyers can place orders. Called "electronic commerce", "E-business", "eBusiness" or simply "ebiz", this new trading channel offers significantly more than advertising; it offers a new means of marketing forest products in the ECE region and around the globe.

The electronic marketplace can bring together both small and large buyers, sellers and agents on a level playing field. At the present, it seems that major forest products companies are watching from the sidelines, maintaining their current sales channels, augmenting their current communication channels with e-mail, and waiting for future opportunities. The complexity of the sites, shown through examples below, influences the degree of transactions: simple homepages are announcements of availability, while actual transactions take place in electronic markets.

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[1] Dr. Richard Vlosky, Associate Professor, Forest Products Marketing Program, School of Forestry, Wildlife, and Fisheries, Louisiana State University, Baton Rouge, LA 70803, tel: +(1)225 388 4527, fax: +(1)225 388 4251, e-mail: vlosky@unix1.sncc.lsu.edu

[2] Mr Jarkko Taskinen, former wood products marketing graduate student (February 1999), North Karelia Polytechnic, Joensuu, Finland, tel: +358 40 595 69 49, e-mail: jtaskine@hotmail.com

Despite the growing importance of electronic commerce, today the vast majority of forest products trade worldwide is conducted by conventional means, i.e. through personal contact and via telephone and fax. However, eBusiness is expanding rapidly. Nearly all of the Global Fortune 500 companies, which include six forest products companies, are currently using or developing Internet-based business systems to augment current channels (Vlosky 1999). And as these "marketplaces" are in their infancy, the next few years will likely show rapid growth, which will continue well into the next millenium.

The most important thing to understand about eBusiness is that it is first and foremost about business, rather than technology. Technology, while important, is only one aspect of electronic commerce. The real challenge lies in managing the changes in business strategies and institutional processes that must take place for enterprises to take advantage of eBusiness (Stewart 1999). Application extensions of the Internet include "intranets" for sharing information within the corporation and "extranets" for sharing information with customers, suppliers, shippers, bankers and other partners.

Electronic commerce took off in the 1980s with the introduction of electronic data interchange (EDI) and the introduction of barcoding for automated data capture. EDI is a technique that allows the electronic exchange of structured data between companies such that administrative and logistical processes can be automated. EDI has shown a tremendous potential to simplify and automate transactions between companies such as by reducing operating costs, the re-entry of data, data entry errors, and delays in stock selection and delivery. However, it is mostly implemented by large companies due to the considerable initial effort required to establish EDI links. EDI's use within the timber industry apparently is not widespread.

With the rapid spread and acceptance of the Internet, a new paradigm in electronic commerce is taking shape. Electronic commerce on the Internet has the potential to be a lot more than just a means of conducting transactions. It creates a new business environment, different from any seen so far, because it lets a business put its entire set of processes and practices online (Barksdale 1999). This provides an unprecedented opportunity to improve the total performance of the business processes.

The primary vehicles for eBusiness are telecommunication networks and the Internet. The key issue in communicating in electronic commerce is only partly of technological nature. It lies more in the fact that the partners are outside the traditional framework of the commercial entity. Analyzing the relationships between the commercial entity and the components of its external environment, such as suppliers, banks and regulatory authorities, will allow identifying the factors that are important to the business objectives. The opportunities provided by the information and communication technologies – business relevance of the technology – are then implemented in support of the core business.

6.2 What types of sites are available on the WWW for forest products trade?

To date sites on the web can be classified as homepages, bulletin boards or electronic market places.

(i) Homepages

A homepage can be a simple announcement of the existence of a company with information about its mission, its products and services and a means to contact the company by e-mail, fax or telephone. A simple homepage may be no different in function than an advertisement in a newspaper or trade journal. Many forest products companies have their own pages, and these companies are frequently linked together at association pages. There are even sites that link member associations, an "umbrella" site for associations and their members. A web user who does not wish to bookmark individual companies can maintain lists of groups of companies through these association lists, which has another advantage of being more up-to-date with the individual sites' addresses.

(ii) Electronic bulletin boards

Some bulletin boards where forest products can be advertised, or customers can post their needs, are now available on the WWW. An example would be the Puupörssi site ("tree exchange" in English) which is a notice board for small companies and private individuals to list their products and services and consumers to list their wood requirements. At this site there are listings of companies and customers but the bulletin board users have the responsibility to make the links. Timber Web is another example.

(iii) Interactive forest products trading sites

At the present the top of the hierarchy of sites are interactive trading sites. A few sites now exist where wood products are actually traded and because of new developments it would be impossible to include a comprehensive listing. Two examples are the International Timber Exchange (*International Holzboerse*) and Hardwood.Net. Another example where sawn softwood is sold is the JSOP Woodmarket where buyers and sellers find each other in an electronic market place. (While theoretically it does not matter where in cyberspace the marketplace is located, this site originates from Finland). Buyers announce through a series of questions the type of products being sought and their specifications. From the other side, sellers announce, in this case, sawnwood that is available. If the grade, species and other specifications match, the buyer and seller are put in contact with each other to negotiate price and terms of delivery.

At Woodmarket confidentiality is maintained by using encoded passwords to allow a buyer to conduct simultaneous negotiations with several sawmills that have been suggested according to the product criteria submitted to the database. Conversely, sellers reportedly can offer lots of sawnwood for sale, and buyers can electronically bid, to which the sawmill responds electronically to confirm the order. Electronic forms are available for inquiries, tenders, counter offers and confirmations as well as buyer and seller profiles.

Other advantages of the electronic marketplace:

- It is an online, real-time commercial trading tool which reduces transaction time and associated costs.
- Cost of services are charged based on time used while in the system, plus fees for electronic messages and forms.
- Purchasers can rotate stocks faster.
- Trading is not dependent on traditional working but distribution follows traditional channels.
- The system allows quick response to changes in price, delivery or other conditions (Woodmarket Net).

Another example for sawn hardwood is called HardwoodSearch. Sawn hardwood buyers browse a marketplace developed by the *Hardwood Market Review* in Charlotte, North Carolina, USA. After selecting the species and quality of sawnwood desired, a buyer is given a list of supplies and suppliers available and then the buyer "submits" a request which is simultaneously e-mailed and faxed to advertisers. In turn, advertisers contact the prospective buyer to complete the transaction.

At the International Timber Exchange, a multilingual (7 languages) site, buyers can choose roundwood, sawnwood, veneer, various services and even energy wood.

6.3 North American electronic commerce

(i) How many forest products companies conduct electronic business in North America?

One study[3] showed that 40% have Internet technologies in their companies and of the 60% who do not, half do not plan to develop capabilities in the future (Vlosky, 1999). This is an important consideration for companies trying to reach that "third" of the North American market by electronic means. Another study found that 64% of forest products companies surveyed use the Internet for business, up sharply from 43% in 1997 (*Southern Lumberman*, 1998). The 1998 survey indicated that primary Internet usage was divided between use for e-mail (31%), marketing purposes (22%), learning about new equipment and supplies (19%), establishing a website (20%), and monitoring lumber prices (8%). Internet usage varied greatly between softwood and hardwood producers, with 80% of the softwood producers surveyed reporting Internet use, compared to only 46% of hardwood producers. Of the total respondents to the 1998 survey, 36% process hardwoods, 25 % softwoods and 36% process both. Half of the companies are privately owned, 33% are family owned, and 8 % are publicly owned.

(ii) Cost of electronic commerce

66% of the respondents in the Vlosky survey had spent less than $50,000 on purchasing and installing Internet technology, while 7% spent over $250,000. This wide range can be attributed to different strategies. Companies can establish simple websites or "corporate calling cards" for less than $10,000 or can spend considerably more to undertake sophisticated applications such as EDI and electronic business. There was a positive correlation between company size and expenditures for eBusiness technology, with smaller companies showing more limited expenditures on information technology.

(iii) Why North American companies are enthusiastic about eBusiness

Companies using electronic commerce felt that it improved competitive advantage through:

- improved customer contact (gaining new and retaining current customers),
- increased sales,
- more access to and easier purchases from vendors,

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[3] "Internet-based eBusiness in the forest products industry," by Dr Richard Vlosky, 1999.

- faster communication with and responsiveness to partners;
- enhanced corporate image (Vlosky, 1999).

In addition, ebiz permits customers to compare product specifications and prices and to reduce transaction time (*Timber & Wood Products*). Another advantage is that an Internet marketplace is not constrained by traditional office hours. This should equally be an advantage for trading with different time zones, such as Asia, North America and Europe.

Respondents to the Vlosky study did not anticipate reduced administrative costs as a result of using the Internet. Rather, the focus was on competitive advantage in the market.

(iv) Impediments to implementation of electronic commerce

The prime obstacle to forest products companies embracing electronic commerce is concern for security and confidentiality (Vlosky 1999). Many trading sites have avoided this problem by using the web as the first step in the marketplace where buyers and sellers are brought together. Market-oriented sites ask buyers what they are searching for and then seek to fulfil their needs. Alternatively, a seller announces the products available and buyers respond via e-mail, fax or telephone for those goods which meet their needs.

Some of the strongest impediments to Internet implementation were found to be a lack of understanding about the benefits of ebiz and a lack of adequately -trained information technology staff.

6.4 Electronic commerce in Europe

British timber importers and agents have the intention of using Internet as a business channel in the future (Taskinen, 1999). Currently they have fewer company websites than their American counterparts, but the United Kingdom trade was found to be conducting a greater share of its actual trade by electronic means at this time than those in the United States.

Europeans have different reasons for using Internet, including information searching, fast communication and doing business (Taskinen, 1999). New users expressed more concerns about security and confidentiality than experienced users. Another reason found for using the Internet was that companies wanted to establish direct customer contacts. Companies anticipated future uses would be for conducting business transactions and establishing new contacts.

In Europe there is no correlation between company size and Internet use (Taskinen, 1999). Indeed one of the advantages to the small player is that the WWW provides a level playing field. A small company in a remote country can appear, via its website, to be the same size as the largest multinational forest products company.

82% of European executives recognize the strategic importance of e-commerce, but only 39% are actually taking action (report by Anderson Consulting cited in *Timber & Wood Products*). The report stated that companies are hesitating to conduct electronic business for lack of international regulations. In North America, the opposite approach, i.e. lack of government regulations, has been credited for spurring electronic commerce.

6.5 The role of the ECE Trade Division in electronic commerce

The UN/ECE Trade Division is home of the United Nations Centre for the Facilitation of Procedures and practices for Administration, Commerce and Transport (UN/CEFACT).

Underlying the work of UN/CEFACT is the understanding that the growth and scope of world trade can only be achieved through the convergence of facilitating business processes and the opportunities provided by the information and communication technology. Therefore, the Centre works to reduce international trade barriers and lowering transaction costs by producing standards and recommendations to simplify and harmonize business processes. In particular, UN/CEFACT is responsible for the development and maintenance of the international standard for EDI, UN/EDIFACT, which provides the essential rules for electronic business.

UN/CEFACT's major contributions to electronic business are encapsulated in recommendations for best practices and standards for process related. They can be categorized into instruments in support of establishing the ground rules for the digital marketplace, and work to enhance the legal environment for electronic business.

Concerning the ground rules for the digital marketplace, there are currently 26 UN/CEFACT Trade Facilitation recommendations, five of which have become ISO standards. Some of them have their purpose to reduce the complexity of existing procedures while others strive to harmonize transaction data or the methods used for transmitting the data.

To enhance the legal environment for eBusiness, the Legal Working Group of the Centre analyses current legal processes and issues, identifies legal constraints that adversely impact electronic business and recommends possible solutions. The Group makes recommendations with regard to best practice and the removal of national legal and commercial practice barriers to electronic business. It works closely with UNCITRAL in order to ensure that the practical needs of users are taken into consideration in such recommendations.

6.6 The future

This new electronic business channel is in its infancy and the means by which communication and business are conducted today will undoubtedly change in the next decades. Still there has been dramatic growth over the last few years in the exchange of information within the forest products sector thanks to the Internet. The Internet has evolved quickly from being an information tool to being an electronic marketplace which facilitates commerce.

For some companies ebiz has become a new means of doing business. With the current restructuring of the forest products industry, resulting from mergers, buyouts and take-overs, the new corporations will eventually rely on Internet links, including intranets and extranets. Firms engaged in extranet marketing activities will need to actively maintain and enhance their product offerings to keep pace with the technological advances of the competition.

CHAPTER 7

ROUNDWOOD SUPPLY, TRADE AND CONSUMPTION

Highlights

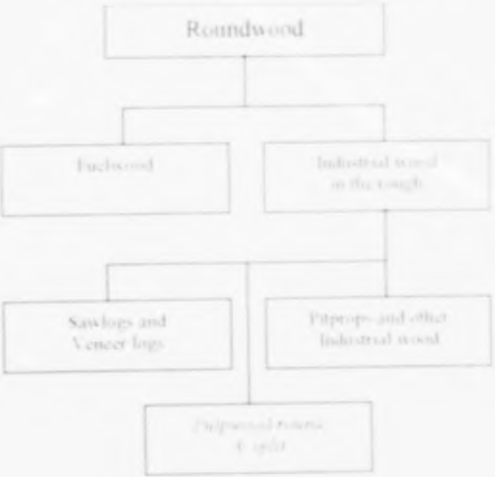
- European removals in 1998 and 1997 were equal in total, but had important fluctuations between assortments
- Roundwood trade in Europe, especially imports and exports of hardwoods accelerated in 1998
- Hardwood and softwood log prices fluctuated in 1998 and 1999 and rose generally
- Pulpwood prices were depressed in the United States due to an oversupply
- North American roundwood consumption increased with the high demand for sawn hardwood and softwood
- North American roundwood removals are shifting eastward due to changing supply availability and other factors
- Russian roundwood removals fell heavily in 1998 due to the mid-year economic crisis
- Japan remains by far the largest roundwood importer despite structural change in imports of further value-added products
- The Asian economic crisis in 1998 had negative consequences for ECE region roundwood exporters

7.1 Introduction

This chapter describes developments in the roundwood markets in 1998 through mid 1999. These roundwood markets are an important background to the following chapters on sawnwood, wood-based panels and woodpulp and paper. The breakdown of roundwood according to ECE/FAO definitions allows analysis of the components of the market (graph 7.1.1). Throughout the chapter removals is used synonymously for production when roundwood produced in the forest is actually *removed* as opposed to being stocked in the forest.

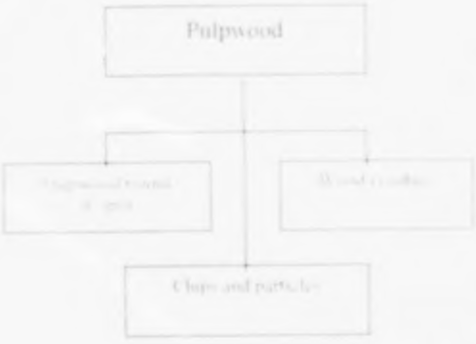
GRAPH 7.1.1

FAO/ECE roundwood breakdown


Roundwood
Fuelwood
Industrial wood in the rough
Sawlogs and Veneer logs
Pitprops and other Industrial wood
Pulpwood rounds & split

GRAPH 7.1.1

FAO/ECE pulpwood breakdown


Pulpwood
Pulpwood rounds & split
Wood residues
Chips and particles

7.2 ECE region developments

In 1998 total roundwood removals remained almost unchanged from 1997 in Europe despite considerable movement of roundwood assortments within the total (table 7.2.1). United States roundwood removals increased by 1.0% and by 4.8 million m^3, to overcome the drop in 1997, but not to recover the 1996 rate of removals (statistics were not available for Canada). After appearing to be recovering in 1997, Russian roundwood removals fell heavily in 1998, by 14% or 19 million m^3.

Both structural and cyclical factors exerted downward pressure on roundwood markets in the region:

- pulpwood oversupply in the southeastern United States;
- low pulpwood and residue prices (see discussion in chapter 11 of pulpwood markets);
- the low wood costs of pulp and panels producers using tropical plantation wood;
- potential of large volumes of wood in Russia, if they can be mobilized;
- generally low transport costs, even for voluminous, low-value goods such as roundwood;
- expansion of OSB, MDF and engineered wood products compete for low-quality roundwood.

The major factor at the global level counterbalancing these downward influences on roundwood prices is the continuing strength of the United States economy, and especially the housing sector, and the subsequent demand for roundwood.

7.3 European developments

Total European removals in 1998, at nearly 360 million m^3 were marginally higher than in 1997. However this did not reflect a general stability, but rather a balancing of contrasting trends by country and by assortment (table 7.3.1). In fact three of the major assortment groups recorded declines in removals: logs (down 0.4%), other industrial wood (down 2.4%) and fuelwood (down 2.5%). Only a fourth assortment, pulpwood, registered an increase by 2.6% to 113.0 million m^3. Increased pulpwood removals went to

TABLE 7.2.1

Total roundwood removals, 1994 to 1995

	1994	*1995*	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
						Volume	*Per cent*
			(million m^3)				
EUROPE	345,892	359,299	342,579	359,372	359,790	418	0.1
Sweden	55,900	63,600	56,300	60,200	58,100	-2,100	-3.5
Finland	48,420	49,894	46,272	51,798	53,670	1,872	3.6
France	42,242	43,361	40,443	42,396	42,870	474	1.1
Germany	39,813	39,343	37,014	38,207	38,950	743	1.9
Poland	18,776	19,088	20,316	21,635	23,300	1,665	7.7
Turkey	16,845	19,279	19,411	18,050	17,668	-382	-2.1
Spain	15,307	16,075	15,631				
Austria	14,360	13,805	15,009	14,725	14,033	-692	-4.7
Czech Republic	11,950	12,365	12,000	13,491	13,991	500	3.7
Russian Federation	115,670	116,510	96,814	134,700	115,547	-19,153	-14.2
Canada	183,224	188,432					
United States	498,438	499,310	490,601	485,880	490,638	4,758	1.0
North America	681,662	687,742	679,033	674,312	679,070	4,758	0.7

TABLE 7.3.1

Roundwood removals in Europe, 1996 to 1998

Product	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
		(million m³)		*Volume*	*Per cent*
Coniferous	238.3	253.6	250.0	-3.6	-1.4
Broadleaved	104.3	105.8	109.8	4.0	3.8
Total	342.6	359.4	359.8	0.4	0.1
of which					
Fuelwood	56.6	56.6	55.2	-1.4	-2.5
Industrial wood	286.0	302.8	304.6	1.8	0.6
- Sawlogs	163.6	176.2	175.5	-0.7	-0.4
- Pulpwood	106.6	110.1	113.0	2.9	2.6
- Other	15.8	16.5	16.1	-0.4	-2.4

panel production as woodpulp production remained constant in 1998.

There was also a contrast between trends by species group: in general, removals of hardwood moved more positively than those of softwoods (table 7.3.2). Nevertheless, softwood remains the largest species group. European softwood removals were more than twice that of hardwood removals in 1998.

The reasons for the strength in hardwood log removals in 1998 included demand for beech in Europe and Asia and the success of oak and beech flooring (as mentioned in chapters 2 and 9). Furniture production and consumption turned around in 1998 and while regaining momentum, required more sawn

TABLE 7.3.3

Removals of coniferous logs in selected countries, 1995 to 1998

REMOVALS	*1995*	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
			(1000 m³)		*Volume*	*Percent*
EUROPE	142,627	134,540	146,924	143710.4	-3,213.6	-2.2
of which						
Sweden [a]	34,300	30,200	33,700	31,500	-2,200	-6.5
Finland	21,697	20,267	23,772	24,238	466	2.0
Germany	20,314	19,362	22,094	20,296	-1,798	-8.1
France	13,407	12,727	13,289	13,600	311	2.3
Poland	7,656	7,542	8,025	8,405	380	4.7
Austria	7,513	7,664	8,027	7,670	-357	-4.4
Czech Republic	5,465	5,810	6,221	6,680	459	7.4
Norway	4,590	4,031	4,537	4,195	-342	7.5
United Kingdom	3,443	3,567	3,642	3,732	90	2.5
Romania	1,974	2,479	2,720	2,850	130	4.8
Switzerland	2,820	2,215	2,392	2,392	0	0.0
Other countries	19,448	18,676	18,505	18,152	-352.6	-1.9
Russian Federation	42,370	32,447	29,720	27,050	-2,670	-9.0
United States	173,404	171,286	176,391	179,240	2,849	1.6

[a] Felling year

TABLE 7.3.2

Species changes in roundwood removals between 1997 and 1998

	Volume change (million m³)	*Change %*
SOFTWOOD		
Logs	- 3.2	-2.2
Pulpwood	+1.0	+1.3
HARDWOOD		
Logs	+2.5	+8.6
Pulpwood	+1.9	+6.4

hardwood. Consumption of sawnwood increased in Europe in 1997 and 1998, partly as a result of these demands. For pulpwood there is continuing demand for short-fibre, hardwood pulp, especially for the sector with fastest growth in consumption, i.e. printing and writing paper for computers and copiers.

Three of the four largest roundwood producers in Europe (Sweden, Finland, Germany and France) recorded increases in 1998, but Sweden showed a drop, entirely due to removals of softwood logs, which fell by over 2.2 million m³ (6.5%) to 31.5 million m³ (table 7.3.3). This latter figure was still above that for 1996, although well below those for 1995 and 1997. This fluctuation in Sweden which is without a clear trend, but may be linked to roundwood prices, contrasts with the steady increase in Finnish removals of softwood logs, which grew by 4 million m³ between 1996 and 1998.

The level of removals of industrial wood (i.e. excluding fuelwood) in the four-largest European producers changed considerably between 1997 and 1998 (table 7.3.4).

TABLE 7.3.4

Industrial roundwood removal changes between 1997 and 1998

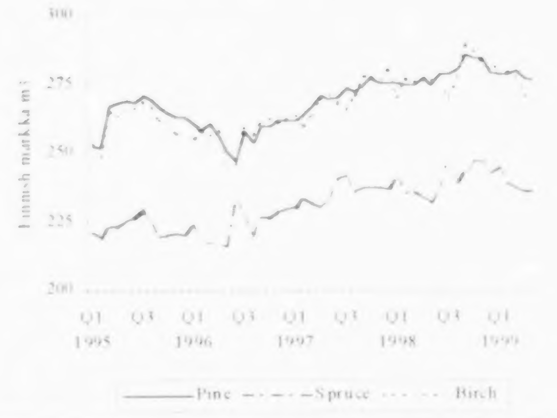
	1998-1997 (million m³)	*Change 1998/1997*
Sweden	-1.7	- 3.0%
Finland	+ 1.9	+ 3.9%
Germany	+ 1.0	+ 2.7%
France	+ 0.5	+ 1.5%

The fall in removals of softwood logs in Sweden correlated with lower production levels of sawn softwood. Relatively high sawlog prices apparently reduced sawmillers' profits and eventually by the end of 1998 led to reduced sawmilling capacity (Swedish Wood Exporters' Association). In early summer 1999 log prices were falling in Sweden (*Holz Journal*). A fall in log prices could have consequences for Swedish competitivity. Developments for roundwood prices reflect this broad situation of increasing levels of production, constrained by international competition.

In Finland log and pulpwood prices rose sharply in early 1998, but fell after mid year which continued into 1999 (graph 7.3.1). In Germany spruce log prices have been rising rather steadily over the last two years (graph 7.3.2). Pine log prices have remained lower but they too have increased since the third quarter of 1998.

GRAPH 7.3.1

Finnish log prices, 1995 to 1999



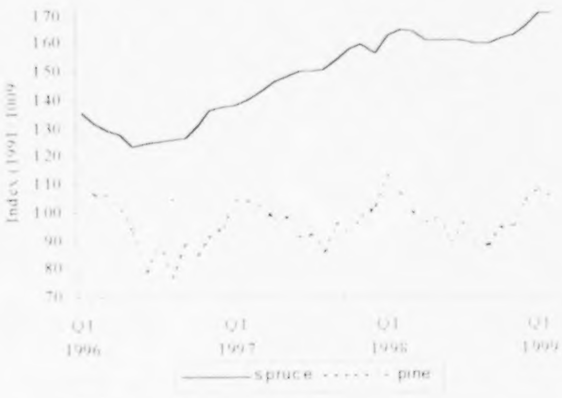
Source : Finnish Forest Research Institute, 1999

Hardwood log prices in Germany fell in the first half of 1998 (graph 7.3.3). Since the second half of 1998, prices have risen sharply due to demand, both domestic and export for white oak and beech sawnwood, veneer and other products from these two popular species.

Elsewhere in Europe, auctions in France of standing timber and logs in the autumn of 1998 and spring of 1999 recorded strong demand for oak. In Lithuania, in the first quarter of 1999, roundwood prices dropped by 10% to 15% due partly to rationalization of previously high domestic log prices as well as competition from sawlogs imported from Russia. In the United Kingdom, standing timber prices have dropped by 50% over the past two years.

GRAPH 7.3.2

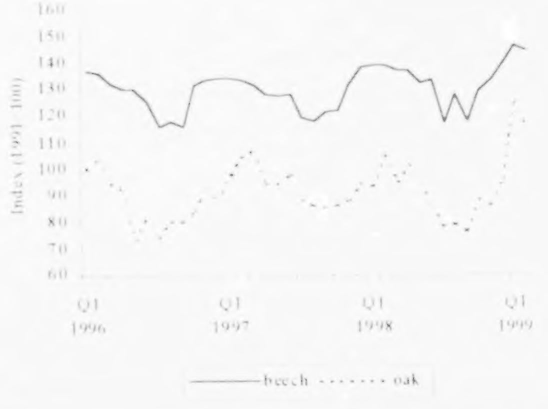
German softwood log price indices, 1996 to 1999



Source : ZMP, 1999

GRAPH 7.3.3

German hardwood log prices indices, 1996 to 1999

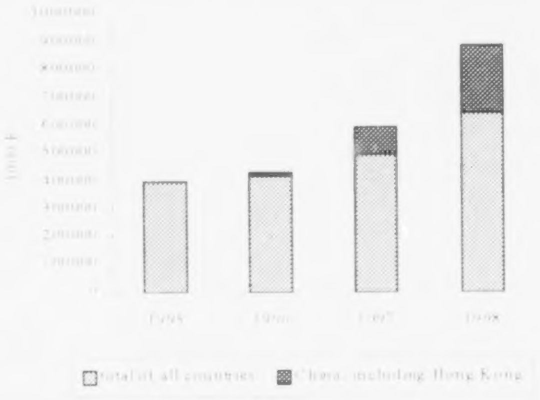


Source : ZMP, 1999

Although the volume of removals did not change significantly in 1998 from the previous year, the trade of industrial wood in the rough was active (table 7.3.5). Hardwood log exports, both within the region and to destinations such as China, rose by 13.3%. French beech log exports illustrate this growth (graph 7.3.4). Softwood exports rose less, by 4.9%, but on double the volume. European import volumes rose strongly, by 15.1% to reach 48.8 million m³, a volume more than twice that of exports. Finland imported 36.8% more industrial wood in 1998 than in 1997, the majority being pulpwood from Russia, Estonia and Latvia.

GRAPH 7.3.4

French beech log exports, 1995 to 1998



Source : French customs as reported by *Arborescences*, 1999

7.4 North American developments

In the United States, removals of both logs and pulpwood rose by 1%, to reach 250.5 million m³ and 154.0 million m³ respectively in 1998. The United States forest products industry has now adjusted to the change in roundwood supply patterns triggered by reductions in harvests from National Forests in the Pacific Northwest (PNW). The core of the industry is concentrated in the region known as the South, i.e. the southeastern region of the country. As one example, 14 of the 15 largest pulpmills in the United States are in this region. The industries in the PNW have not only reduced the scale of their operations but also rely now on wood supply from industry-owned land. In addition the fall log exports from industry-owned land have dropped, freeing another source of log supply for the PNW industry (see section below on Japanese roundwood imports).

The reduced harvest levels on National Forests was only one element, and perhaps not the most important, in this structural change in the location of the United States forest industry. Others include:

- relatively high harvesting costs in the PNW, due to the difficult terrain and large log size.
- excellent climatic and harvesting conditions and genetic stock in the south.
- good supply possibilities from private and industry forests in the south.
- processing technology advances facilitated use of the smaller diameter southern resource.

TABLE 7.3.5

Exports and imports of industrial wood in the rough, 1995 to 1998

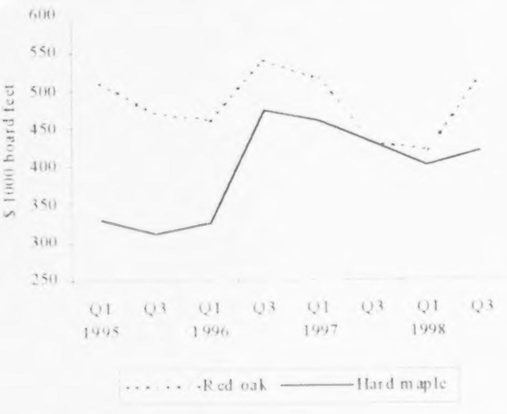
	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
		(1000 m³)			*Volume*	*Per cent*
EXPORTS						
EUROPE :						
- Coniferous	12,668	10,848	12,474	13,087	613	4.9
- Broadleaved	6,853	5,373	6,420	7,276	857	13.3
TOTAL	19,521	16,221	18,894	20,363	1,470	7.8
of which :						
Germany	4,919	2,992	4,032	4,304	272	6.7
France	2,475	2,227	2,281	2,574	293	12.8
Czech Republic	2,161	2,687	2,657	2,497	-160	-6.0
Sweden	1,725	1,621	1,393	1,420	27	1.9
Switzerland	1,016	979	1,147	1,006	-141	-12.3
Belgium-Luxembourg	805	748	884	900	16	1.8
Austria	482	625	819	809	-10	-1.2
Slovakia	759	529	850	714	-136	-16.0
Finland	865	579	640	706	66	10.3
Hungary	562	555	701	..		
Portugal	778	452	627	603	-24	-3.8
Other countries	2,974	2,226	2,862	4,129	1,267	44.3
Russian Federation	18,374	15,915	17,845	19,693	1,848	10.4
Canada	1,187	955	701	1,472	771	110.0
United States	12,817	11,937	10,864	8,959	-1,905	-17.5
North America	14,004	12,892	11,565	10,431	-1,134	-9.8
IMPORTS						
EUROPE :						
- Coniferous	20,221	17,633	20,648	23,573	2,925	14.2
- Broadleaved	25,554	18,477	21,770	25,231	3,462	15.9
TOTAL :	45,775	36,110	42,418	48,804	6,386	15.1
of which						
Sweden	7,653	5,018	7,655	9,173	1,518	19.8
Italy	4,936	4,936	4,504	5,223	719	16.0
Austria	4,454	4,451	5,277	5,137	-140	-2.7
Norway	3,717	2,476	2,855	3,504	649	22.7
Belgium-Luxembourg	3,141	2,391	2,823	2,760	-63	-2.2
Germany	1,743	1,263	1,770	2,124	354	20.0
Spain	2,192	1,902	2,116	..	..	..
Portugal	1,632	1,065	1,679	2,058	379	22.6
France	2,345	1,601	1,806	1,911	105	5.8
Denmark	655	477	909	1,046	137	15.1
Turkey	777	992	871	1,037	166	19.1
Czech Republic	330	213	504	781	277	55.0
United Kingdom	662	836	576	587	11	1.9
Other countries	11,539	8,489	9,073	11,347	2,274	25.1
Canada	6,495	6,088	6,685	6,193	-492	-7.4
United States	706	524	582	843	261	44.8
North America	7,201	6,612	7,267	7,036	-231	-3.2

Despite the very strong housing market, sawlog prices have been falling in the United States South, apparently because of weakening demand from industries which normally compete for raw material with sawmills. Demand for veneer logs for plywood was dropping. The southern pulpmills cut production in 1998 to re-establish the balance on the world pulp market, thus reducing competition for material on the boundary between pulpwood and sawlogs. The combination of lower log prices and higher sawnwood prices (see sawn softwood chapter 8) increased the profitability of sawmills in the United States South.

In contrast to softwood logs, hardwood sawlog prices rose in 1998 and 1999, following trends for sawn hardwood (graph 7.4.1).

GRAPH 7.4.1

United States hardwood log prices, 1995 to 1998



Note : Prices paid for red oak and hard maple, grade 1 logs, delivered to sawmills, Doyle log scale.

Source : *Ohio Timber Prices*, Ohio Division of Forestry, 1999.

Official removals data are not available for Canada, but a similar regional pattern is apparent as in the United States. British Columbia, with terrain conditions similar to PNW, remains a major supplier to the United States and Asian markets. However log harvests have dropped 26% from 1989's 88 million m^3 to 1998's 64.8 million m^3 (PricewaterhouseCoopers). The Province is faced with continuing high costs due in part to harvesting conditions, but also to the implementation of the British Columbia Forestry Practices Code and Forest Renewal Act, intended to promote sustainable forest management in the Province. The Code has resulted in unexpectedly higher harvesting costs. On the other hand roundwood supply from eastern Canada has increased and its share of the national total has risen. In particular those provinces not included in the Softwood Lumber Agreement – the Maritimes and the Prairies – have become more competitive and increased their share of the market (from initial low levels).

United States total roundwood exports – in softwood primarily to Asia and in hardwood, both to Europe and Asia – have been falling as log supplies tightened and domestic demand rose. In 1998 industrial wood exports from the United States fell by 17.5% to a low of 9 million m^3 (table 7.3.5). Canadian exports doubled on smaller volumes to1.5 million m^3.

Canada imported fewer logs in 1998 as more of the United States' supplies were processed domestically. (Canadian sawnwood production rose slightly.) The United States roundwood imports rose, but remain low in comparison to Canada and most European countries.

7.5 Russian developments

Russian removals persist at low levels. At 115.5 million m^3 in 1998 reported removals are 14% lower than 1997, but at about the same level as 1994 and 1995. This is far below the 350 million m^3 annual harvest of the former Soviet Union. The current data may be underestimated because of unrecorded removals (e.g. from illegal fellings or internal consumption by mills). However the underlying trend certainly reflects low activity levels in many parts of the Russian forest industry.

The causes of this situation are multiple and mutually reinforcing:

- low domestic demand aggravated by the mid-1998 economic crisis;
- infrastructure, machinery, energy and many other problems;
- finance, investment, ownership, payment and other problems which have halted industrial development and reduced many parts of the Russian economy to inefficient barter arrangements;
- rationalization and subsequent escalation of rail costs which have rendered many remote forest products production centres unprofitable;
- decentralisation of control from Moscow to the regions.

The factors above are exaggerated by the vast size of the country. Because of the changes in transport costs, the areas closest to export markets, i.e. the northwest and the far east – have in general been more successful in maintaining export markets, notably as regards roundwood (pulpwood in the north west and saw and veneer logs in the Far East).

Despite all these negative features, forest products, particularly roundwood, sawnwood and pulp, are some of the few Russian products which have satisfactory export outlets (although forest products are mush less important than oil and gas). The export-oriented forest products sector has survived. Indeed, those enterprises still active (many enterprises have been forced to close) have become more efficient and competitive than in the past. These include several pulpmills (some with foreign ownership or investment) and sawmills especially in northwest Russia, the traditional centre of Russian sawmilling since tsarist times.

Russian exports of softwood logs to Japan totalled 4.5 million m^3 in 1998, 78% of the 1997 level according to the All Japan Russian Logs Dealing Association. Softwood species were whitewood (spruce and fir) 31%, larch 40%, redwood (pine) 29% and cedar 1% (*Japan Lumber Journal*). Larch is used predominantly for plywood and is increasing in demand in substitution for some hardwood plywood grades or uses. Pine is used predominantly for rafters. Hardwood log exports were about 400,000 m^3.

Russian softwood sawlogs were subjected to a 6-month, 5% export duty based on the invoice value. The measure is apparently two-fold: first to increase government revenues; and second, to monitor and control export activities (*Japan Lumber Report*).

7.6 Japanese roundwood imports

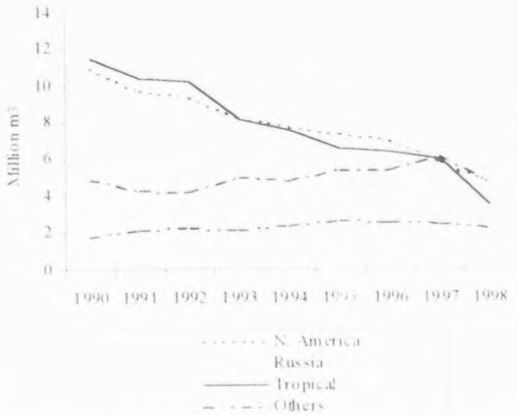
Japan is the world's largest importer of wood raw material, but the volume and composition of its imports have changed radically over the last few years. The Japanese processing industries (sawmills, plywood mills and pulpmills) have become less and less competitive compared to larger-scale mills in wood producing regions, which do not have many of the constraints brought about by Japanese high labour costs.

Over the 1990s Japanese log (sawlog and veneer log) imports have roughly halved, from 29 million m^3 in 1990 to about 15 million m^3 in 1998. This trend has been steady, indicating a decisive phase-out of primary processing capacity and its inherent dependence on imported logs and instead the import of sawnwood, plywood and other further value-added products.

However the reduction in roundwood imports has only affected the two most important sources: North America and South Sea logs sourced from seven exporting countries, including Malaysia, Indonesia and Papau New Guinea (Japan Wood-Products Information and Research Center). In 1990 Japan imported about 11 million m^3 from each of these two sources, but by 1998 this figure had fallen dramatically to 4.7 million m^3 from North America and by more, to 3.3 million m^3 from the South Sea group (graph 7.6.1). These reductions in imports were simultaneously forced by 1) North American harvest reductions and increased domestic consumption, and 2) by log export bans in some tropical countries.

GRAPH 7.6.1

Japanese roundwood imports, 1990 to 1998



Note : Tropical is mosthly South Sea logs, plus some African logs.

Source : Japan Wood-Products Information and Research Center, 1999.

The 1998 log import levels from North America and South Seas were roughly equal to Russian imports which had fluctuated in the 4 to 6 million m^3 range throughout the period. "Other" log imports (from New Zealand, Chile and Europe) have also remained stable, around the 2 million m^3 mark. In 1998 log imports were from New Zealand 1.9 million m^3, from Chile 118,000 m^3 and from Europe 95,000 m^3. European log exports to Japan were highest in 1995 at 517,000 m^3.

CHAPTER 8

SAWN SOFTWOOD CONSUMPTION, SUPPLY AND TRADE

Highlights

- In 1998 North American sawn softwood consumption rose to a record level for the third consecutive year.
- European production and exports moved up to new records, although this development was not universal in 1998.
- CIS countries' sawnwood production and trade were negatively affected by the Russian economic crisis in mid 1998.
- Sawnwood exporters were severely hurt in 1998 by the downturn in Asian demand.
- Asian sawnwood markets were recovering in early 1999.
- In North America sawn softwood prices neared record levels in mid 1999.

8.1 Introduction

The sawn softwood markets in 1998 and 1999 directly followed economic developments in North America, Europe, the CIS and Asia. In North America consumption rose strongly and production reached record levels in 1998 but trade was also active with the notable exception of a sharp decrease in exports to Asia. European exporters were also constrained by the Asian economic crisis but as European consumption remained high, exports rose. CIS countries' production and trade was negatively influenced by the Russian economic crisis in mid 1998 and the subsequent devaluation of the ruble.

Readers may initially find the analysis below weighted too heavily toward Swedish sawn softwood market. However as Europe's largest producer and exporter, Sweden sustained unusual circumstances related to production, exports, prices, currency fluctuations and stock. The resulting market developments, which were generally opposite to those of other European countries, deserve extra attention.

Stocks of sawnwood are intended buffer swings in supply and demand, but stocks can also exaggerate them. Changes in stock levels can directly influence price. In many sawnwood markets the stocking levels have dropped as both buyers and sellers attempt to minimize inventory-carrying costs and inherent risks. The result is a lack of a buffer and volatility in prices when demand and supply fluctuate. This effect can be seen in Europe, North America and Southeast Asia.

8.2 Consumption

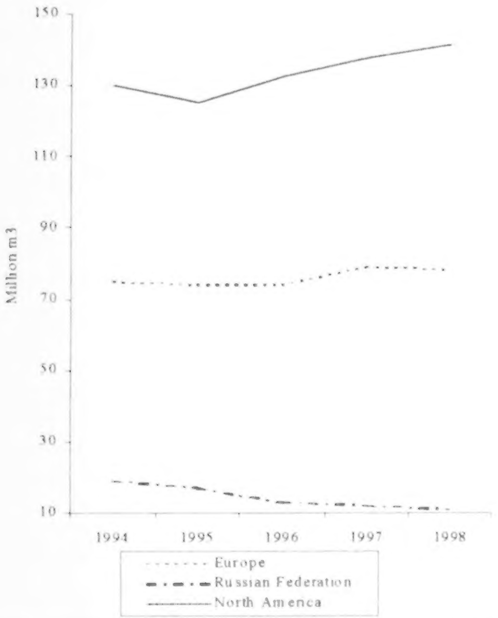
Consumption of sawn softwood in *Europe* rose slightly in 1998 to 79.6 million m^3 but has not recovered the levels of the late 1980s (table 8.2.1 and graph 8.2.1). European consumption of sawnwood advanced, as the construction sector was strong in certain countries, especially in early 1998 as described in Chapter 2. Production moved up to record levels. Trade, both within Europe and elsewhere was active. Imports continued to grow for the fourth consecutive year and exports reached record levels as described below.

While the European housing market in 1998 and early 1999 exhibited continued weakness in many counties, a positive trend for the sawmilling sector is construction of single-family rather than multiple-family housing (European Organisation of the Sawmill Industry (EOS)).

In *North America*, boosted by strong housing construction in the United States, consumption rose to 140.6 million m^3, the second consecutive record. Despite the cross-border trade limitations imposed by the five-year "Softwood lumber agreement between the Government of the United States and the

GRAPH 8.2.1

Sawn softwood consumption, 1994 to 1998



Government of Canada," exports of Canada to the and the United States rose further.

Some 610,000 m^3 additional volume was consumed by the domestic Canadian market in 1998, even though housing construction decreased by 8% to 137,400 units. The demand was filled by the 300,000 m^3 in increased production and the decrease in export volumes from 1997, i.e. from part of the 417,000 m^3 in "potential" exports. (Canadian imports, which are less than 50,000 m^3, declined slightly.) In the absence of statistics on stock changes, the *apparent* consumption may disguise a build-up in stocks.

In the first four months of 1999, United States consumption rose 4.0% (American Forest & Paper Association, 1999). Consumption increases were met by higher production, which gained 5.2%, rather than by imports which rose less than 1%. Despite interest rates which moved up to 7.7%, with the rise in May 1999 housing starts at a rate extrapolated to 1.7 million annually, the Timber Committee forecast for United States consumption in 1999 of 123.5 million m^3 appears realistic at this time. As the *Review* went to press, there was a calming in the demand for housing. This may be due to the traditional summertime lull, a slight rise in home mortgage interest rates, escalating sawnwood prices or a combination of these factors.

TABLE 8.2.1

Sawn softwood balance in Europe, the Russian Federation and North America, 1994 to 1998

	1994	*1995*	*1996*	*1997*	*1998*	*Timber Committee estimates*	
			(million m^3)			*for 1998*	*for 1999*
EUROPE							
Production	73.60	76.31	75.24	79.72	81.39	81.42	82.20
Imports	32.35	27.41	27.76	31.48	31.70	30.89	30.94
Exports	30.00	30.14	29.19	31.79	33.50	32.78	32.74
Net trade	-2.35	2.73	1.43	0.31	1.80	1.89	1.80
Apparent consumption	75.95	73.58	73.81	79.41	79.59	79.53	80.40
RUSSIAN FEDERATION							
Production	24.64	22.52	17.53	16.67	15.22	15.95	16.67
Imports	0.04	0.04	0.01	0.33	0.33	0.33	0.33
Exports	5.33	5.64	4.35	4.78	4.61	4.48	4.88
Net trade	5.29	5.60	4.34	4.45	4.28	4.15	4.55
Apparent consumption	19.35	16.92	13.19	12.22	10.94	11.80	12.12
NORTH AMERICA							
Production	141.14	135.33	141.83	145.22	146.27	152.33	152.41
Imports	38.98	41.36	43.75	43.32	44.19	42.64	42.86
Exports	49.98	52.14	53.55	51.55	49.85	48.72	48.94
Net trade	11.00	10.78	9.80	8.23	5.66	6.09	6.08
Apparent consumption	130.14	124.55	132.03	136.99	140.61	146.25	146.33

It should also be stated that American homes are getting larger with the corresponding implications for sawnwood demand since most houses are of wood construction. Many two-story homes have grown from 1500 to 2000 square feet (1987 average of 1905 square feet (about 200 m^2)) to between 2000 and 3000 square feet (1998 average of 2195 square feet (about 240 m^2) (PaperTree Letter). An aging housing stock, i.e. the million plus homes built annually over the last decades drives a thriving repair and remodelling demand for sawnwood (including hardwoods). Despite these two main sources of demand, the increases in sawnwood usage per house have not increased proportionately, due to: 1) increased use of engineered wood products such as wooden I-beams which consume less wood to perform the same functions; 2) more efficient construction techniques such as wider stud spacing; and more disturbing, 3) the substitution of nonwood materials.

Approximately 25% of new United States houses have an exterior, preservative-treated softwood deck in addition to, or in place of, a terrasse or patio (*Qualified Remodeler* as reported by *Forest Products Journal*). Decks are wooden platforms made of sawnwood slats for exterior, garden/yard furniture and outdoor activities. They are extremely popular in North America (80% of homeowners want a deck) and a common DIY project. The wood deck market consumed between 0.8 and 1.2 billion square feet (3.5 million m^3 at a normal 1.5-inch thickness) and was valued at over $3 billion in 1997.

The impact of the economic crisis in Russia was felt throughout the forest industry and consumption of

TABLE 8.3.1

Production of sawn softwood, 1995 to 1998

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
		(1000 m^3)			*Volume*	*Per cent*
EUROPE of which :	76,308	75,241	79,720	81,394	1,674	2.1
Main exporting countries	56,041	55,329	59,884	60,485	601	1.0
Sweden	14,737	14,170	15,419	14,874	-545	-3.5
Germany	12,925	13,123	13,801	13,807	6	0.0
Finland	9,400	9,300	10,600	11,300	700	6.6
Austria	7,552	7,950	8,254	8,534	280	3.4
France	6,827	6,506	6,800	6,950	150	2.2
Poland	4,600	4,280	5,010	5,020	10	0.2
Other countries of which :	20,267	19,912	19,836	20,909	1,073	5.4
Norway	2,205	2,400	2,500	2,530	30	1.2
United Kingdom	2,106	2,140	2,214	2,269	55	2.5
Turkey	2,502	2,308	2,032	2,101	69	3.4
Romania	877	924	1,115	1,456	341	30.6
Switzerland	1,342	1,240	1,100	1,200	100	9.1
Russian Federation	22,525	17,530	16,675	15,220	-1,455	-8.7
Canada	59,343	61,828	63,764	64,082	318	0.5
United States	75,992	80,004	81,453	82,192	739	0.9
North America	135,335	141,832	145,217	146,274	1,057	0.7

sawn softwood fell to 10.9 million m^3. Production fell by 9% in 1998 but exports fell by only 4%.

8.3 Production

Production of sawn softwood continued to rise in *Europe* in 1998 for the third consecutive year, by 2.1% over 1987, to reach a new record level of 81.4 million m^3 (table 8.3.1). In general the main exporting countries increased production, including Austria, Finland and Germany to record production, as well as France and Poland.

The notable exception was Sweden, Europe's largest sawnwood producer, which fell 3.5%. Burdened with falling prices of pine and low prices of spruce/fir, with high domestic log costs, profitability slackened. Bankruptcy of mills which normally produced a total of 600,000 m^3, approximately equalled the drop in national production (Swedish Wood Exporters' Association).

Most of the remaining countries in Europe achieved high production levels, many at new records, or at least at records since the break-up of the former USSR. Statistics from a number of countries in central and eastern Europe show that they have overcome early economic transition difficulties in the sector and are producing as much or more than they were prior to the early 1990s. Double-digit percentage production increases on relatively small volumes were reported by Croatia (11% to 154,000 m^3), Romania (31% to 1,456,000), Slovakia (69% to 344,000 m^3) and Slovenia (46% to 535,000 m^3).

Baltic country sawnwood production is no longer universally growing, as Lithuania encountered serious roundwood constraints in 1998 which continued into 1999 (table 8.3.2). Ongoing restitution of land claims constrains many central and eastern European countries to some degree. This continues to reduce log removals, not only from current state forests where management is not carried out on land to be privatised, but also on privatised land, as most new owners are not forest managers. In Lithuania sawmills were additionally constrained by the unaffordable logs from state forests, limited logs from restituted lands and a drastic reduction of log imports from both Kalingrad and from Belarus where log exports were banned as of July 1998. Belarus banned log exports to insure adequate supplies for domestic conversion to sawnwood at prices determined by the state.

TABLE 8.3.2

Baltic Countries sawn softwood production, 1992 to 1998
(1000 m^3)

	1996	*1997*	*1998*	*% change 1998/97*
Estonia	360	656	765	17
Latvia	1510	2550	2800	10
Lithuania	1350	1130	900	-20

North American production rose by 1.1 million m^3 in 1998 to reach 14.6 million m^3. United States production rose to an eight-year high of 82.2 million m^3, falling well below late 1980s highs of near 90 million m^3. Canada had record production at 64.1 million m^3 despite the downturn in Asian exports, which were partly made up by increased exports to the United States. Following recovery in apparent consumption in 1997 to 16.9 million m^3, Canadian consumption rose 4% in 1998, probably because of stock increases.

The concentration of North American production continued to shift from the west coast to the east coast in both Canada and the United States. From the late 1980s when environmental constraints reduced harvests in the United States Pacific Northwest, sawnwood production has dropped 22% overall (*Random Lengths* as reported by *Forest Products Journal*). The same effects are occurring in British Columbia, where production has fallen 14%. In the United States the shift has been accelerated by the South's excellent growing conditions combined with genetically improved species of pines.

In 1998 production in eastern Canada and the south-eastern United States accounted for 50% of the North American sawn softwood. In the United States the Western Wood Products Association reported a 1.7% decline in 1998 over 1997. Western production in the United States is more dependent on National Forest stumpage but in the USDA Forest Service's 1998 fiscal year, 20% less was sold although the actual harvest volumes rose slightly. However the fact that revenues were 26% lower in 1998 than in 1999 and that 40% of timber sold was other than sawlogs indicates that the Forest Service was selling a higher proportion of salvage timber (American Forest &Paper Association, 1998).

The change in production between provinces in Canada over the last decade shows clearly the shifting production from west to east (table 8.3.3).

The British Columbia forest products industry reported the poorest financial performance in the last 13 years with a net loss of Canadian $1.1 billion. Despite an almost 5% fall in the value of the Canadian dollar, overall sales fell 7.4% to C$15.0 billion; sawn

TABLE 8.3.3

Provincial sawnwood production in Canada, 1988 and 1997
(1000 m^3)

Province	*1988*	*1997*
British Columbia	37,726	31,545
Quebec	10,542	15,573
Alberta	3,736	6,021
Ontario	5,344	6,012
Other	1,926	4,931
Total Canada	59,274	64,082

Source: Council of Forest Industries Canada as reported by *World Wood Review* and ECE/FAO TIMBER database.

softwood sales fell from C$7.9 billion in 1997 to C$6.9 billion in 1998. Several sawmills were closed and most saw shift reductions and worker layoffs. Sawn softwood net losses were approximately C$58 million in 1998 compared to net earnings of C$259 million in 1997. The industry report stated that although sawnwood shipments to the United States were maintained at 1997 levels of 17.5 million m^3, the value of the shipments slipped 13% down to C$3.6 billion in 1998. The British Columbia industry claims the exports to the United States were restricted by the Softwood Lumber Agreement because the "cost structure is too high for the mills to be able to pay the tariffs on shipments in excess of the quota" (*The Forest Industry in British Columbia, 1998*).

In *Russia* production fell about 9% in 1998 to a new low of 15.2 million m^3. Production has been steadily falling over the last six years and the mid-1998 economic crisis ensured that production levels would be even lower. Timber Committee forecasts for 1999 production (made in September 1998) were for a slight recovery in production back to 1997 level of 16.7 million m^3.

The Russian Ministry of Economics created a new holding company, Rao Lesprom, to restore control, increase production and the international competitiveness of the wood industry (*Timber & Wood Products*). State-owned shares in 200 wood enterprises are to be given to Rao Lesprom for their control and to establish vertical integration. The Ministry also prepared a programme for up to the year 2005 which will create 800 large wood industrial holdings based on the present 30,000 small to medium-sized enterprises.

8.4 Trade

(i) ECE region

Trade was active in the ECE region in 1998 and Europe strengthened its net export position in 1998 after near equilibrium in 1997 (table 8.4.1, next page). Exports were slightly stronger than forecast for 1998 by the Timber Committee, possibly because some Asian export market strength returned at the end of 1998. Overall ECE region sawnwood exports normally destined to Asia were substantially reduced in 1998 and were partially reabsorbed on the domestic markets.

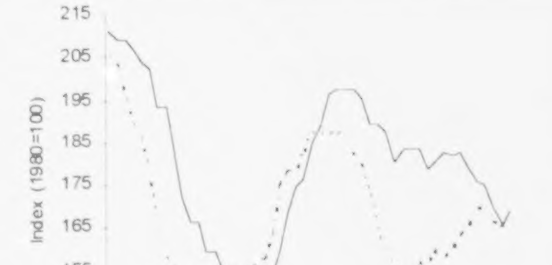
With Japan and Korea's diminished demand in 1998, ECE exporters faced with surplus production looked to their other markets, for example the Middle East. But as sawnwood flowed into Middle Eastern countries from many ECE region countries, South America and New Zealand, prices fell and countries such as the United States and Canada shipped less in 1998 than in 1997 (*Random Lengths Export*). Other countries were more successful, for example Finland's exports to the region were up 17.9% to 408,000 m^3 in 1998.

(ii) European developments

Exports. Swedish wood exporters in 1998 "suffered the worst profitability crisis for a very long time" according to the Swedish Wood Exporters' Association *Annual Report*. Strong European demand enabled Sweden to maintain its high exports despite a drop in production. Swedish exporters faced stiff competition, especially for shipments outside of Europe, to Asian markets in particular. For Sweden sawnwood exports to Japan fell 29% from 1997, to reach 347,000 m^3. The bright spot in Swedish exports

GRAPH 8.4.1

Swedish sawnwood price indices, 1995 to 1999



Source: Swedish Wood Exporters Association, 1999.

TABLE 8.4.1

Exports and imports of sawn softwood, 1995 to 1998

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
		(1000 m3)			*Volume*	*Per cent*
EXPORTS						
EUROPE	30143	29192	31795	33495	1700	5.3
of which :						
Sweden	10301	10960	10902	10975	73	0.7
Finland	7343	7016	7509	8292	783	10.4
Austria	4515	4000	4838	4897	59	1.2
Germany	1565	1604	1895	1899	4	0.2
Czech Republic	1512	1384	1397	1231	-166	-11.9
Romania	494	556	917	1210	293	32.0
Poland	885	592	831	873	42	5.1
Norway	710	775	700	712	12	1.7
France	386	393	454	543	89	19.6
Belgium-Luxembourg	344	257	275	...	...	...
Portugal	495	440	400	370	-30	-7.5
Other countries	1593	1215	1677	2093	416	24.8
Russian Federation	5637	4350	4780	4610	-170	-3.6
Canada	47561	49618	47664	47186	-478	-1.0
United States	4581	3929	3886	2665	-1221	-31.4
North America	52142	53547	51550	49851	-1699	-3.3
IMPORTS						
EUROPE	27408	27756	31484	31704	220	0.7
of which :						
United Kingdom	5010	5344	6491	6481	-10	-0.2
Italy	4612	4632	5145	5274	129	2.5
Germany	4570	4466	5280	4867	-413	-7.8
Netherlands	2636	2739	2889	...	...	...
Denmark	1868	1585	2256	2197	-59	-2.6
France	1562	1767	1828	2097	269	14.7
Belgium-Luxembourg	1360	1298	1270	1500	230	18.1
Spain	1112	1135	1275	...	...	...
Norway	626	800	958	969	11	1.1
Austria	875	900	904	874	-30	-3.3
Hungary	731	760	672	...	...	...
Other countries	2446	2330	2517	2609	93	3.7
Canada	760	768	804	618	-186	-23.1
United States	40596	42985	42514	43572	1058	2.5
North America	41356	4[illegible]53	43318	44190	872	2.0

in 1998 were shipments to the United States, approximately 36,000 m^3, which partly took advantage of Swedish sawmills' ability to produce to certain United States grade stamp requirements (some also exported to the United States without grade stamps).

"Profitability" is the key word in the discussion of European sawnwood industry developments in 1998. In 1998 export markets were firm in Europe, as were export markets outside of Europe with the exception of the Asia-Pacific region. However in Sweden, profitability fell when spruce and fir (white wood) prices rose in 1998, but not back to 1997 levels, while pine (redwood) prices continued to fall from 1998 (graph 8.4.1). Despite difficult spruce/fir logging conditions due to wet weather, many sawmills attempted to raise revenues, or at least cash flow, with the rising prices of pine by shifting production into the pine market. In 1998 Swedish exports rose slightly, by less than 1%, as stocks were drawn down, a condition that often precedes price rises. However the prices of sawnwood were stable in early 1999.

Falling pine sawnwood prices had ramifications throughout the sawnwood industry. Combined with rising log prices in some countries, the European Organisation of the Sawmill Industry noted widespread difficulties in profitability.

Denmark found profitable export markets for long logs, especially as the Swedish krona strengthened against the Danish krona. However sawmills, both softwood and hardwood, have suffered from the export of higher grade logs which leaves lower grade logs for domestic production. Sawmills received low prices for sawnwood in 1998 and with a 2% rise in log costs at the end of 1998, covered fixed, but not variable costs. Mills are smaller in Denmark than in neighbouring Germany and Sweden and with lower production and efficiency, coupled with 25% higher wage rates, Danish sawmillers face difficult competition (personal communication with Mr. Peter Hviid).

Sweden's plight was not shared by the other exporting countries. Finland's sawn softwood exports rose to new highs 8.3 million m^3 with most increases going to European countries due to the soft Asian market. In 1999, Finnish exports were up 2.5% through May as compared with 1998, particularly to the United Kingdom, up by 67%, and to Germany, up by 20% according to the Finnish Forest Industries Federation. According to the Federation the weakness in the euro has benefited the exports of that 30 to 40% of sawmills which are exporting to euroland. Finnish [illegible]

[illegible] definition of what constitutes "Finnish exports" has

of Stora-Enso with Schweighofer. Today approximately 25% of "Finnish" production is outside of Finland!

Several other European countries experienced recovery in their export markets or rose to new records as indicated in the table. France had an active trading year in 1998 with exports rising 19.6% to 543,000 m^3 and imports gaining 14.7% to reach a record 2.1 million m^3.

In 1999 the Japanese market has changed direction as evidenced by Sweden's export sales which more than doubled (from 101,000 to 239,000 m^3) over the first quarter of 1998. However to all destinations combined, Sweden's sales of sawn softwood have declined by 9% and exports have dropped by about 13% in the first quarter, based on preliminary information from the Swedish Wood Exporters' Association. Sales to the United Kingdom and Germany were lower. Even the weakening of the Swedish krona has not helped sales to the United Kingdom.

Like Sweden, Germany's exports in the first four months of 1999 were off 14.4% overall, but almost tripled to Japan, as compared to the same period of 1998 (*Holz Journal*). Prices were stable and the domestic market was exhibiting some strength despite a forecast decrease in housing starts in 1999.

Baltic exports are not rising as fast as in the mid 1990s due to maximised production capacity, domestic resource limitations (both economic and real due to restitution of forest land to private owners) and rising domestic consumption (table 8.4.3). A lack of kiln capacity means considerable volumes of Baltic sawnwood are shipped green, which restricts acceptance in "dry" applications in Ireland or the United Kingdom. The *Review's* special chapter on Estonia mentions increased kiln capacity coming on-stream, often through foreign investment.

TABLE 8.4.2

Baltic sawn softwood exports, 1995 to 1998
(1000 m^3)

	1995	*1996*	*1997*	*1998*
Estonia	283	485	597	690
Latvia	700	1286	2060	2250
Lithuania	728	1046	871	508

Slovakia reported increased exports, which could not be confirmed. However trade sources indicated that Slovakia and the Czech Republic have found new [illegible]

increased sales by 15% in early 1999 to the United

Imports. European countries imports in 1998 were not homogeneous: some countries went up while others went down (table 8.4.1). However total European imports did not change appreciably from 1997 levels (31.7 million m^3).

Capacity expansion. In Germany the first full market effects of the expansion of processing capacity appeared in 1998 and 1999. According to Dr. Heiner Ollmann, former Chairman of the FAO/ECE Working Party on Forest Economics and Statistics, and Professor at the University of Hamburg, when the German Democratic Republic collapsed, so did all the industries based on roundwood, e.g., sawmills, panel producers and pulp producers. Only a few small sawmills survived which are now privately owned. The forest managers in the *Neue Bundesländer* (former GDR) lost the major part of their markets. Removals dropped from 11 million m^3 in 1989 to 3 million m^3 in 1992.

TABLE 8.4.3

German manufacturing roundwood capacity expansion, 1998 to 2000

(roundwood capacity 1000 m^3)

Enterprise name	*capacity*	*Start up year*
Klenk Holzwerke in Baruth	1,300	2000 expansion
Klausner Nordic Timber in Wismar	750	1998 new
Klausner Nordic Timber in Wismar	1,200	2000 expansion
Holzwerke Wittenberg in Wittenberg	N.A.	2000 (+)
Pollmeier in Malchow	200	1999

Source: Dr. Heiner Ollmann, personal communication, July 1999.

The federal government initiated various economic development programmes in the *Neue Bundesländer* because of the depressed economic state. Depending on how many jobs were created investors could obtain grants for 50% or more of new manufacturing facilities. The following table shows the mammoth size of five new sawmill and wood-based panels plants.

These huge expansions have brought controversy. The German sawmilling industry alleged that roundwood demand and price increased, with the result that competitivity had been distorted in a sector that was already struggling with high roundwood and depressed sawnwood prices. In their defence, some of the new mills claimed not to be impacting German

sea which supply these new large mills. Since mills like the one in Wismar are export-oriented, they claimed not to distort the German domestic market.

Sawmiling sector. The EOS met prior to the last Timber Committee Session in 1998 to discuss sawnwood markets. According to their press release, three factors were having a negative impact on European sawnwood markets: the Asian crisis, the Russian economic crisis and the devaluation of the dollar, especially the Canadian dollar. While the markets had strong demand, mills were said to be suffering in some European countries from high log prices and low sawnwood prices. Sawnwood prices overall in Europe had risen, partly due to a reduction in stocks at mills. The EOS also called for a label to identify European sawnwood as being sustainably produced. Missing from the EOS traditional list of negative impacts on (western) European sawnwood markets was competition from central and eastern European countries, perhaps because Latvia became a new member of the EOS.

Mergers within the forest products industries are no longer news, but it is important to note that restructuring is affecting all segments of the industry, from producers to retailers, and most regions of the world. In the ECE region two Nordic giants, Stora of Sweden and Enso of Finland merged to form a diverse forest products supplier with products ranging from pulp and paper to sawnwood. Enso had combined with the Austrian company, Holzindustrie Schweighofer, with its sawmills in Austria and the Czech Republic, to achieve a combined capacity of 4 million m^3 of sawnwood and further processed sawn products (*Timber & Wood Products* and *Random Lengths Export*).

(iii) North American developments

Exports. Overall Canada's exports of sawnwood fell for the third year, due primarily to the Asian economic crisis. For a number of reasons, such as EU phyto-sanitary regulations which precluded green sawnwood and reduced competitivity against Nordic suppliers, Canada's exports to Europe have declined by over 80%, from 4.2 million m^3 in 1989 to approximately 0.7 million m^3 in 1997 (Statistics Canada). In 1998 Canada had a 5% share of the United Kingdom imported sawn softwood market which totalled 6.5 million m^3. (Other United Kingdom import market shares in 1998 were: Sweden 33%, Baltic Countries 25%, Finland 17%, Russia 7% (*Timber & Wood Products*).

exporters turned potential exports back to the voracious domestic market. United States exports of sawn softwood have fallen over the last decade and at 2.7 million in 1998, are only half the level of five years ago.

United States and Canadian *offshore* exports fell sharply in 1998. Canadian sawn softwood exports totalled 5.0 million m^3 in 1998, down 28% from 6.9 million m^3 in 1997 of which 3.9 million was to Japan (USDA Foreign Agricultural Service). United States sawn softwood exports to offshore markets totalled 1.9 million m^3, off 35.7% from 1997 with a 52.7% decline, to 0.7 million m^3, to Japan.

In 1996, exports to Japan accounted for 70% of North American sawnwood exports, but they started falling in 1997 and then fell dramatically (by 46%) in 1998. Canada profited from the slight upturn at the end of 1998 in the Japanese sawn softwood demand, but the United States did not.

North American exports to Asia were recovering in the first four months of 1999. United States exports to the Pacific Rim moved up 5.1% in the first quarter of 1999 compared to 1998, with the greatest increases to China, up by 19% (*Random Lengths Export*). Canada shipped 1.3 million m^3 of sawn softwood to offshore markets during the quarter, a 10% gain. Shipments to Japan, dominated by British Columbia, were up nearly 20% to 1.1 million m^3.

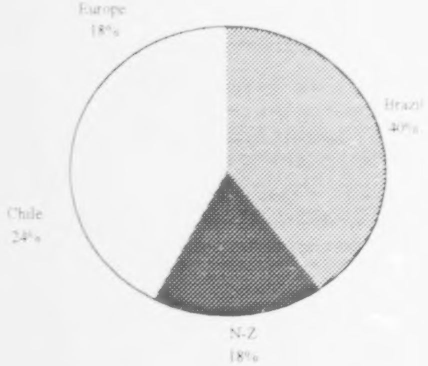
The resurgence of exports to Asia in late 1998 correlates with a strengthening of the yen which moved from over 140 yen per dollar in August 1998 to almost 110 yen per dollar in February 1999 (the rate has slipped back to somewhere in between these extremes in mid 1999). Japan also initiated some long-awaited economic recovery packages, one goal of which was to boost the home construction market.

Imports. The United States imported a record 43.6 million m^3 of sawnwood in 1998, 97% from Canada, but growing volumes came from Europe, New Zealand and Chile (graphs 8.4.2 and 8.4.3). An increase in domestic production to the highest level since 1990 could not satisfy the rise in demand and imports increased rose by 1 million m^3 in 1998. As forecast by the Timber Committee, in mid 1999 the United States had increased production and to a lesser extents, increased imports, in line with the 0.8 million m^3 consumption in 1999.

Prices. The prices of North American sawnwood slumped in throughout 1997 and most of 1998 as Asian export demand fell and export volumes were turned back to the healthy domestic market. From the 1997 record high prices slid 16% (graph 8.4.4.) [illegible] in mid 1999, rising 53% from 1998's third quarter lows, to reach $479/thousand board feet (*Rarndom Lenghts*). The all time-high of the Random Lengths composite price was $518 in January 1994. Home builders complained that the cost increase would add $2,000 to $4,000 to the cost of a new house.

GRAPH 8.4.2

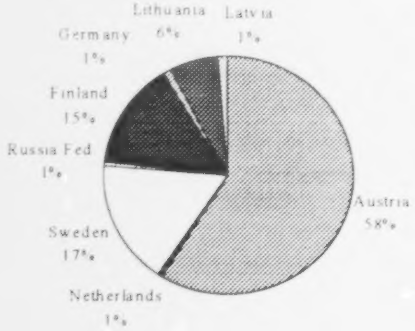
United States softwood import sources (without Canada), 1998



Source: USDA Foreign Agricultural Service, 1999.

GRAPH 8.4.3

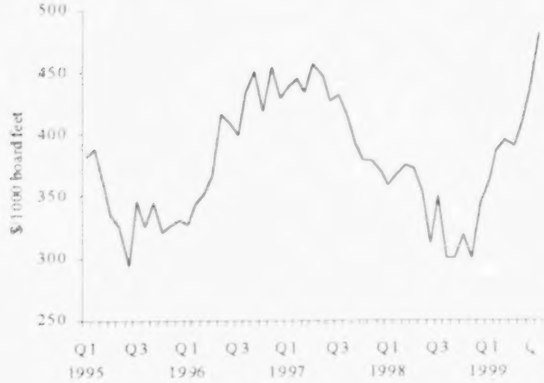
United States sawn softwood import sources from Europe, 1998



Source: USDA Foreign Agricultural Service, 1999.

GRAPH 8.4.4

North American composite sawn softwood price



Source: *Random Lengths Export*, 1999.

TABLE 8.4.4

Western sawnwood production by roundwood source, 1988 and 1998
(million m^3)

	1988	*1998*
National Forests	27.2	4.4
Other government	3.4	3.5
Industry forestland	12.3	21.5
Private forestland	12.8	9.9
Total	55.8	39.3

Source: *World Wood Review*, 1999.

Changing resources. Sawnwood production from roundwood harvested from western National Forest Land has plummeted over the last decade. From a high of 27.1 million m^3 in 1988 production dropped to under 4.7 million m^3 in 1994 (Western Wood Products Association as quoted by *World Wood Review*). However roundwood supply does not seem to be a problem for the western sawmilling industry which has resized and now sources roundwood from private and industrial lands (table 8.4.1).

The plywood industry in the United States West, which was based on large, old growth peeler logs, did not fare as well. In fact, as plywood plants closed due to resource limitations, a portion of their raw material has been used for sawnwood. Other sources of raw material for sawmills have been logs which previously would have been exported to Asian markets, as well as some imported logs. Recovery in log exports to Japan is doubtful because of structural changes in the Japanese industry. These changes include the import of semi-finished or finished products rather than domestic manufacturing, especially with imported logs. Exporters compete intensely for the lucrative Japanese market, with other suppliers taking market share from United States exporters of logs, sawnwood and panel products.

The drop in western production has obviously been offset by production in the east and south-east United States, but still total domestic production at 82.1 million m^3 is well below the record production in 1987 of 90 million m^3. Although *World Wood Review* softwood harvests in the south-eastern United States outstrip growth by 6% or 0.8 million m^3 per year.

Softwood Lumber Agreement. The *Softwood Lumber Agreement* between Canada and the United States aims to restrict Canadian exports to the United States to a duty-free quota of 34.7 million m^3 (42.1 million m^3 were exported in 1998 from all provinces). An understood, but unstated objective is the rise in sawn softwood prices. Efforts by Canadian producers to subvert the quotas by upgrading 2x4 studs, by drilling a hole or notching them, or to upgrade boards by reclassifying them as house siding, carpentry or joinery, but not "lumber", resulted in accusations of manipulation of the agreement and restraint of trade. In early 1999 the United States Court of International Trade ruled that notched and drilled studs were also subject to duties and quotas. Perhaps part of the 20% sawn softwood price spike in 1999 is due to the loss of this duty-free volume.

The Softwood Lumber Agreement had not hurt Quebec and Ontario sawnwood producers in 1997 and 1998 as production rose 16.3 and 7.7% respectively. The (*Import/Export Wood Purchasing News*). However perhaps production and exports would have grown more without the agreement. As the agreement covers only the largest producing provinces, the Maritime and Prairie provinces have not been included and have more than doubled their exports to the United States since 1995 (*Random Lengths Yard Stick*). Despite the complaints of Canadian exporters, United States retailers and builders associations, Canadian exports to the United States rose to a record 42.1 million m^3, while still remaining about one-third of United States consumption (*Random Lengths Yard Stick*).

In the first and second quarters of 1999 the high prices of sawn softwood in the United States enabled Canadian exporters to profitably increase exports over 1998 volumes, despite the $106 per 1000 board feet (2.4 m^3) duty.

fourth year of the five-year Softwood Lumber

Agreement between the United States and Canada, the two countries came closer together with the merger of their forest products industry giants, Weyerhaeuser and MacMillan Bloedel. A number of advantages were cited by the merger parties, among which, complementary market strengths, plus mutually advantage raw material supplying and processing capacities.

(iv) Russian Federation developments

The 1998 financial crisis only strengthened Russian sawmillers' desire to export. With domestic consumption falling, some two-thirds of production is exported. The most positive trends were exhibited by the pulp and paper exporters whose revenues at $360 billion were up more than 11% on 1997 (*Timber & Wood Products*).

In March 1999 the Russian government imposed a 5% tax on timber exports. As most Russian sawnwood is exported in dollars, and with the collapse of the Russian rouble in mid 1998, the 5% will likely come from any profits of exporters. Rising sawnwood prices in European markets could alleviate the effect of the tax. In early 1999 Russian exports of sawnwood and logs to Japan were strong and as importers stocks became sufficient, prices softened (*World Wood Review*).

Russian sawnwood exports to Japan were forecast (in late 1998) to increase by over 10%, from 316,000 m^3 in 1998 to 350,000 in 1999 according to the Japan Lumber Importers Association. In contrast, 1999 log imports from Russia were forecast to remain nearly steady at the 1998 level of 4.8 million m^3. In mid 1999 trade sources reported an oversupply of pine sawnwood destined for the Japanese market had been partly sold at very low prices in the United Kingdom (*Timber & Wood Products*).

8.5 Promotion of sawnwood

In concluding this chapter the various national promotions of sawnwood merit mention. The loss of sawnwood market share to substitutes and engineered wood products was mentioned in the overview chapter. Unlike North America, many European countries do not have a broad modern "wood culture" in home construction, with the notable exception of the Nordic Countries. However, many trade associations, governments and organisations in Europe, including the Nordic Countries, have launched national campaigns to expand the amount of wood used in single-and multi-family houses.

[illegible] even more wood use in construction through improved, efficient designs, often for multi-storey and multi-family residences. In Finland and Switzerland expansion of wood construction was retarded by restrictive fire codes and high insurance premiums, until these obstacles were brought up to date along with construction techniques (*La Forêt*).

The FAO/ECE Team of Public Relations Specialists in the Forest and Forest Industries Sector has succeeded in building a network of forest industries-related PR specialists who are undertaking activities to foster international co-operation to promote wood as an environmentally friendly and renewable resource (www.unece.org/trade/timber/pr).

CHAPTER 9

SAWN HARDWOOD CONSUMPTION, PRODUCTION AND TRADE

Highlights

- European sawn hardwood consumption rose in 1998 for the second consecutive year signalling the end of the long decline.
- European trade, both imports and exports, was at record volumes.
- North American consumption, production and imports climbed to record levels in 1998.
- Russian sawn hardwood consumption continued to decline.
- Both North American and European exports, which had been constricted by the downturn in Asian demand in 1998, were recovering in mid 1999 with renewed demand from Asia.
- Sawn hardwood export volumes were roughly equal after European exports rose and North American exports fell.
- Flooring markets were strong in both North America and Europe and European production of wine barrels was consuming increasing quantities of white oak.
- Exports of beech sawnwood and logs to Asia drove up prices in Europe.
- North American hardwood prices rose in 1998 and early 1999 as demand outstripped capacity.

9.1 Introduction

This chapter will begin by discussing demand as measured by consumption, then analyse its components, i.e. production and trade. Regular readers of the *Review* will find the customary discussion of tropical hardwood markets has been expanded into an individual chapter, number 13.

9.2 Consumption

Apparent consumption in Europe rose in 1998 by 5.7%, confirming the Timber Committee's forecast that the long decline in sawn hardwood consumption has ended (table 9.2.1 and graph 9.2.1). The consumption of 17.5 million m^3 brings it back near the 1992 level. A 12.1% rise in imports overcame the 9.9% rise in exports and the remaining demand was met by increased production in Europe.

The increase in European sawn hardwood consumption was especially due to the larger (above 500,000 m^3 per year) consuming countries partial full recovery back to former consumption levels: France (up 5.8%), Germany (up 12.5%), Italy (up 6.7%), Portugal (up 4.9%) and Turkey (up 14.5%). It is assumed that Spain's consumption increased considerably, but statistics were not received. Conversely, consumption in the United Kingdom fell by 15.0%, as did Poland (down 17.1%) and Romania (down 2.3%). Full consumption statistics appear in the annex.

In 1998 in North America apparent consumption of sawn hardwood moved up strongly by 6.6% consistent with Timber Committee forecasts. North American production rose by 5.1% and imports increased by 6.0% to meet the domestic demand. Exports fell 5.3%, primarily due to the weakness in most Asian markets. Markets for hardwood have been strong for high-end products such as furniture, flooring, and mouldings, as well as the 40% of consumption which goes to lower-grade usages of pallets, packaging and railroad ties (sleepers). Weakening net trade in the United States, for the second year in a row, aided the rise in consumption.

TABLE 9.2.1

Sawn hardwood balance in Europe, the Russian Federation and North America, 1994 to 1998

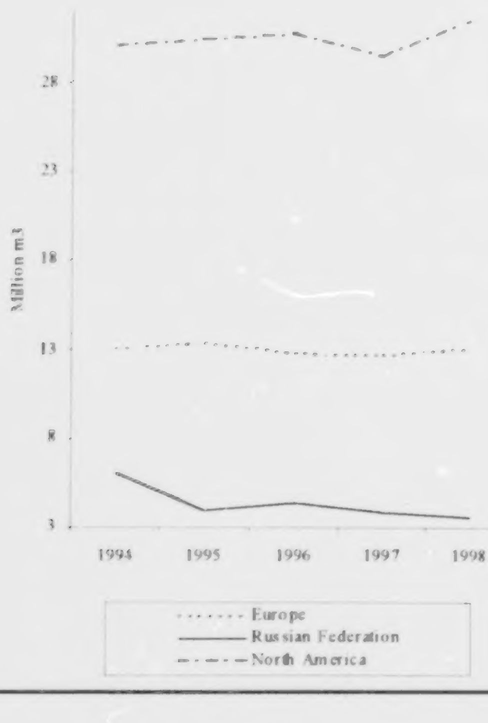
	1994	*1995*	*1996* *(million m^3)*	*1997*	*1998*	*Timber Committee estimates* [a] *for 1998*	 *for 1999*
EUROPE							
Production	13.02	13.40	12.71	12.56	12.95	12.95	13.19
Imports	6.40	6.66	6.02	7.25	8.12	7.41	7.36
Exports	3.28	3.21	3.23	3.25	3.57	3.35	3.39
Net trade b/	-3.12	-3.45	-2.79	-4.00	-4.55	-4.06	-3.97
Apparent consumption	16.14	16.85	15.50	16.56	17.50	17.01	17.16
RUSSIAN FEDERATION							
Production	6.08	3.97	4.38	3.92	3.56	3.72	3.92
Imports	0.01	0.01	0.01	0.05	0.05	0.05	0.05
Exports	0.07	0.27	0.25	0.25	0.24	0.25	0.25
Net trade b/	0.06	0.26	0.24	0.20	0.19	0.20	0.20
Apparent consumption	6.02	3.71	4.14	3.72	3.37	3.52	3.72
NORTH AMERICA							
Production	30.06	30.44	30.65	31.28	32.89	31.81	33.84
Imports	1.58	1.59	1.45	2.12	2.25	2.07	2.13
Exports	3.17	3.26	3.55	3.89	3.68	4.03	4.06
Net trade b/	1.59	1.67	2.10	1.77	1.43	1.96	1.93
Apparent consumption	28.47	28.77	28.55	29.51	31.46	29.85	31.91

a At September 1998 session. The Committee's estimates for 1998 and 1999 have been adjusted to make them comparable with the historical (actual) data for 1994-1998.

b Negative values are net imports.

GRAPH 9.2.1

Sawn hardwood consumption, 1994 to 1998



United States hardwood market appears to be undergoing some important changes. Production continued to grow in 1998 but an increasing percentage of consumption is from tropical and Canadian imports (table 9.2.2). Apparent consumption advanced as exports decreased by 13.4% overall, with a larger than average fall to Asian markets.

Russian Federation consumption of sawn hardwood was negatively affected by the mid-1998 economic crisis and continued falling. At 3.4 million m^3, consumption was about one-third of its 1992 volume. (In 1992 separate statistics became available for some countries in the former USSR. Sawn hardwood consumption may have been higher than in 1992 in Russia during the latter 1980s.) The entire fall in consumption reflects a 9.3% drop in production as trade in sawn hardwood remains stagnant at a very low level.

9.3 Production

Sawn hardwood production in Europe rose 3.1% in 1998 to reach 13.0 million m^3, a volume below all but the most recent two years of the last 34 years (table

TABLE 9.2.2

United States hardwood market shares, 1996 to 1998
(1000 m^3)

	1996	*1997*	*1997/1996*	*1998*	*1997/1998*
Consumption	27,476	28,650	4.3%	30,653	7.0%
Exports to Europe	455.0	557.1	22.4%	514.6	-7.6%
Exports to Canada	264.2	334.2	26.5%	303.6	-9.2%
Exports to Asia	692.4	743.6	7.4%	514.4	-30.8%
Imports from Canada	543.7	708.5	30.3%	919.8	29.8%
Tropical imports	302.4	315.2	4.2%	354.1	12.3%

Sources: TIMBER database and USDA Foreign Agricultural Service.

9.3.1). Until the last two years, the long-term decline was undoubtedly the result of loss of market share as traditional hardwood applications were replaced by softwood, veneer-covered MDF and non-wood substitutes.

France, the largest European producer of sawn hardwood, increased production in 1998 to cover more of the growing domestic market. This was the case in Turkey and Germany, whose consumption grew by 15% and 13% respectively.

In Europe in 1998 and early 1999 white oak and beech were in high demand and were being produced for both domestic and export markets (more information on the European beech and oak trade may be found below). Many countries in central and eastern Europe had large production increases on relatively small volumes.

The Baltic Countries' softwood market

TABLE 9.3.1

Production of sawn hardwood, 1995 to 1998

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
		(1000 m^3)			*Volume*	*Per cent*
EUROPE	13,402	12,713	12,558	12,953	395	3.1
of which						
France	3,021	3,094	2,807	2,950	143	5.1
Turkey	1,829	1,766	1,801	1,889	88	4.9
Germany	1,180	1,144	1,048	1,165	117	11.2
Italy	1,050	900	963	900	-63	-6.5
Poland	1,050	780	900	840	-60	-6.7
Romania	900	769	746	744	-2	-0.3
Croatia	478	484	505	522	17	3.4
Slovakia	219	203	266	420	154	57.9
Czech Republic	270	305	293	320	27	9.2
Other countries	3,405	3,268	3,229	3,203	-26	-0.8
Russian Federation	3,975	4,383	3,925	3,560	-365	-9.3
Canada	1,093	1,000	835	1,027	192	23.0
United States	29,344	29,650	30,444	31,860	1,416	4.7
North America	30,437	30,650	31,279	32,887	1,608	5.1

developments were discussed in the previous chapters. It deserves mention that their sawn hardwood production increased by a greater percentage, although on considerably lower volumes, with most of the increase consumed domestically (9.3.2). These developments were not uncommon in other countries in central and eastern Europe.

TABLE 9.3.2

Baltic Countries sawn hardwood production, 1992 to 1998

(1000 m^3)

	1996	*1997*	*1998*	*1998/1997*
Estonia	40	73	85	16%
Latvia	104	150	400	167%
Lithuania	100	120	250	108%

Source: TIMBER database, 1999.

North American production of sawn hardwood increased in 1998, by an estimated 1.6 million m^3 to a record level of 32.9 million m^3. In contrast with Europe, North American production of sawn hardwoods has been increasing slowly but steadily over the last three decades. Canadian production rose by 23.0% in 1998 to again come above 1 million m^3, but not back to the high levels prior to 1994.

Over the long term, United States production increases during the last decade have gone more to export markets, for example to Europe and Japan than to the domestic market. Over the last nine years, between 8% and 10% of United States production has been exported. This percentage has risen slowly from 2% to 3% from the 1960s. Growing domestic consumption has taken the remaining share of the additional increased production over this 30-year period.

In the United States in mid 1999, sawn hardwood wholesalers and sawmills could not keep up with demand (*Hardwood Review Export*). As log supplies were good, mills were operating at capacity. United States mills have increased their efficiency of sawing high grade hardwood through improved bandsawing technology, including computerised headrig setworks (the mechanism on the carriage which moves the log toward the saw blade) and more precise downstream operations within the mill.

With the strong United States economy, pallet production, most of which is from low-grade hardwoods, was also strong in mid 1999 (*Weekly Hardwood Review*). Likewise the demand for pallet cants, from which pallet deckboards and runners are resawn, and squared timbers or cants, both for railroad ties and for landscape squares, was also strong. (More analysis below of these markets.)

These markets are critical to sawmills, especially those sawing lower grade and smaller diameter logs which can generate 50% or more low-grade sawnwood and cants. Without the markets for solid sawnwood, hardwood mills would generate considerably higher volumes of chips, which in mid 1999 were marginally profitable due to the oversupplied pulpwood (including chip) market described in chapter 11.

9.4 Trade

(i) ECE region

Sawn hardwood export volumes in the ECE region were about equal between Europe and North America in 1998. However this disguises the two continents contrasting developments: European exports rose almost 10% while North American exports fell by over 5% (table 9.4.1). ECE region imports, both temperate and tropical, advanced strongly over the gains made in 1997.

(ii) European developments

Europe *imports* more than twice as much sawn hardwood as it exports. In 1998 imports rose strongly, by 12%, to a record 8.1 million m^3 (table 9.4.1). A portion of the imports, roughly 18.8% based on volume, were tropical (without Spain and the United Kingdom two important tropical importers that did not report tropical imports).

Many European countries have good hardwood resources which meet domestic needs for both high value and low value products. Special woods are imported, for example tropical species or red oak from the United States. However as the popularity of red oak declines in Europe, imports have fallen. A decade ago red oak made up 23% of the American hardwood imported into Europe, but today it accounts for less than 8% (additional breakdown on imported species below).

Italy, by far the largest sawn hardwood importer in the ECE region, increased imports by 14.8% in 1998 and broke the 2 million m^3 mark. Italy has had a policy to import more sawnwood and further-processed products from both temperate and tropical hardwoods (Federazione Nazionale dei Commercianti del Legno). Sawn tropical timber imports were up by 26.6% in 1998 while temperate sawnwood increased by only 7.9% on a greater volume. Similarly, softwood log imports in Italy fell by 3.2% in 1998 and were replaced by a 4.8% increase in sawnwood. While the

TABLE 9.4.1

Exports and imports of sawn hardwood, 1995 to 1998

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
		(1000 m^3)			*Volume*	*Per cent*
EXPORTS						
EUROPE	3,214	3,228	3,246	3,567	320	10
of which :						
France	761	754	565	543	-22	-4
Germany	320	304	365	393	28	8
Poland	246	228	296	358	62	21
Roumania	252	331	325	333	8	2
Slovakia	110	106	195	279	84	43
Belgium-Luxembourg	171	139	158	152	-6	-4
Hungary	130	150	163		...	
Italy	79	45	103	125	22	21
Netherlands	135	142	123	...	...	...
Austria	144	160	115	122	7	6
Slovenia	114	114	103	106	3	3
Other countries	752	756	735	870	134	18
Canada	769	859	1,003	1,183	180	18
United States	2,495	2,692	2,890	2,502	-388	-13
North America	3,264	3,551	3,893	3,685	-208	-5
IMPORTS						
EUROPE	6,659	6,018	7,247	8,122	875	12
of which						
Italy	1,777	1,576	1,760	2,021	261	15
Germany	708	553	852	955	103	12
Belgium-Luxembourg	532	634	737	900	163	22
Spain	719	514	900			
France	519	425	565	562	-3	-1
Netherlands	631	583	542			
United Kingdom	501	575	611	505	-106	-17
Austria	154	165	192	224	32	17
Portugal	138	144	161	194	33	20
Sweden	135	109	106	123	17	16
Other countries	845	741	822	1,196	375	46
Russian Federation	7	8	46	46	0	0
Canada	892	928	1,027	955	-72	-7
United States	698	518	1,096	1,295	199	18
North America	1,590	1,446	2,123	2,250	127	6

domestic construction industry was stagnant in 1998, the renovation and remodelling market was strong

In early 1999 United Kingdom imports of American hardwoods were "bullish" but importing agents feared buyers' resistance to rising prices for upper grades (*Timber & Wood Products*). Keeping pace with imports, *exports* rose, by 10% to a new record of 3.6 million m^3. Most European countries increased hardwood exports, although quantities were relatively small.

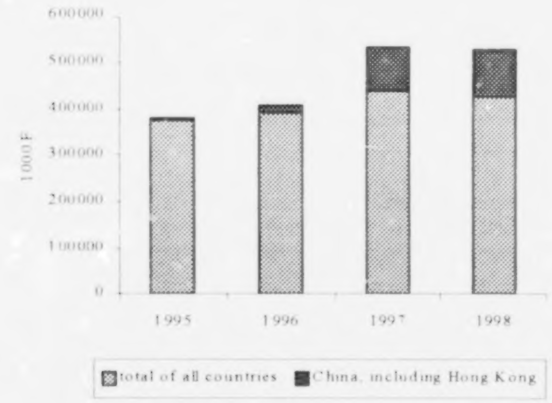
In 1998 Germany, France, Denmark and several other countries exported large volumes of beech sawnwood (approximately 100,000 m^3) and logs (approximately 200,000 m^3) to China and Hong Kong and to Mediterranean countries (*EUWID Timber*, USDA Foreign Agricultural Service attaché reports and European Organisation of the Sawmill Industry). In China and other Asian countries sawnwood is not only used for furniture, but is also sliced paper-thin for veneer applications.

Germany's beech sawnwood exports jumped 18.5% in the first quarter of 1999 (*Holz Journal, ZMP*). Of the total 85,000 m^3 exported, 31% went to China and Hong Kong, 26% went to Spain and the rest went primarily to European destinations.

An example from France gives an indication of this widespread trend (graph 9.4.1). As a result of the export demand for beech sawnwood and logs, in 1999 there was intense competition for quality sawlogs and some sawmills reported unaffordable beech sawlog prices. A similar situation in beech log exports is described in the roundwood chapter 7.

GRAPH 9.4.1

Beech sawnwood exports from France, 1995 to 1998

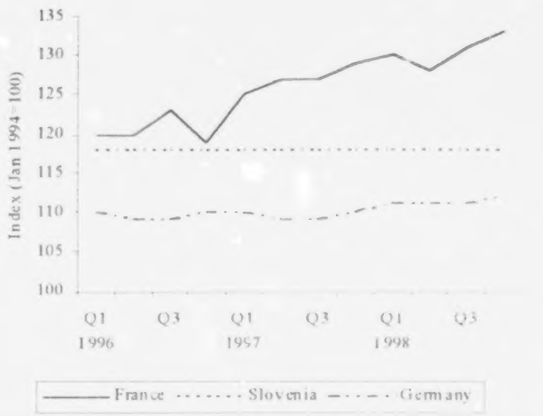


Source: French customs as reported by *Arborescences*, 1999

Beech sawnwood prices in Europe reacted to the heightened export demand and rose in 1998 (graph 9.4.2). Sawnwood prices for high-quality beech exported to China were \$900/ m^3 in 1998 while logs were not far behind, at \$600 to \$700 (*EUWID Timber*). The rise in beech prices turned some buyers toward alternative species and demand rose for ash.

GRAPH 9.4.2

European beech sawnwood price indices, 1996 to 1999



Source: "Forest Products Prices, 1996-1998", *Timber Bulletin*, UN-ECE/FAO, 1999.

White oak demand in Europe was driven by an exploding demand for barrel staving (European Organisation of the Sawmill Industry and American Hardwood Export Council). Both European production of oak and imports of white oak from the United States have supplied this booming market. The year 2000 promises to be an important year for wine consumption. 225 litre barrels, which cost about \$600, have been in high demand for the last several years (*La Forêt*). Some of the European production of barrels and staving was exported to other wine-producing regions such as California (United States), Chile, South Africa and Australia. Wine which is aged in oak barrels acquires the taste of the tannins. Production of barrels begins with clear, defect-free boards which are steamed, bent and then dried for up to two years before being worked into staves and assembled into barrels.

The use of oak barrels is not confined to the wine industry. Some special ales are also fermented in unions, i.e. a 150-gallon (537 litre) oak cask. Unlike wine barrels which are more frequently recycled into sherry manufacturing, beer barrels can be reused and repaired for 40+ years (*Timber & Wood Products*).

As a result of the elevated demand for white oak barrels in 1998, log prices rose by 10% to 20%. These price rises made oak logs less affordable for veneer and sawnwood producers as raw material costs could not be passed on to furniture and parquet manufacturers.

Hardwood flooring was another important market in 1998 and the first half of 1999 in Europe as well as in North America, as described in the next section. In Europe there is a mix of softwood flooring and laminated flooring, for example with a hardwood face and a softwood core and back. In Germany sales of wood flooring increased 2% in 1998 to DM20.2 billion. In volume the wood floor sector grew 8% and was forecast to sustain that rate in 1999 (*Timber & Wood Products*).

In Europe parquet production increased by 8.2% to 58 million m^3 and consumption increased by 5% to 66 million m^3 in 1998 over 1997 (Fédération Européenne du Parquet). In Europe wood flooring represents about 5.5% of the floor coverings, up from 4% in 1993. Sweden produces 25% of the European output, with Germany at 18% and France at 13%. Germany accounts for 28% of the total European consumption, followed by Italy (14%) and Spain (11%).

Traditionally wood flooring was "solid". But the production of laminated flooring has increased by over 100% in the 1990s and is now over half the wood flooring market in countries such as France. In France in 1998, some 80% of parquet was oak, followed by tropical species (7%), chestnut (6%) and beech (5%). These percentages vary considerably by country depending on species availability and fashion.

France, the largest producer and exporter of sawn hardwood in Europe, expanded production in 1998 by 5.1%, which went almost entirely to the stronger domestic market. The oak sector held its own in 1998 with solid market strength for flooring, beams for construction and barrel staving, but the railroad tie market remained stagnant (*Le Bois National*). The beech market was strong as noted in graph 9.4.1.

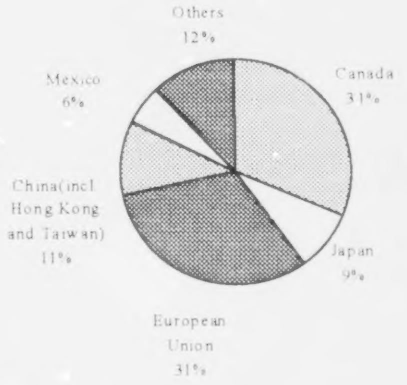
Of the other French species, cherry had strong demand for high grades, sycamore was sought like the beech it resembles and ash and poplar were increasing in demand. Poplar which is mainly used for fruit and vegetable crates was undergoing substitution by plastics. In response the French packaging association, *Syndicat de l'Emballage Léger*, initiated a promotional campaign by printing *J'aime le bois* (I love wood) on their products.

(iii) North American developments

In North America the trade in sawn hardwood was negatively affected by the Asian crisis in 1998. United States exports, which generally increased steadily over the last decades, fell by 13.4% to 3.7 million m^3. This drop was not entirely due to the downfall of Asian markets, as European demand was met by greater European domestic production and more tropical wood (graphs 9.4.3 and 9.4.4). Exports to Mexico rose 15% to $112 million over 1997 but dropped by 2% in the total sawn hardwood export volume (*Import/Export Wood Purchasing News*).

GRAPH 9.4.3

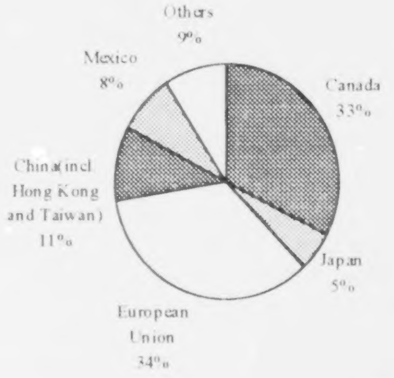
United States sawn hardwood export destinations, 1997



Source: USDA Foreign Agricultural Service, 1999.

GRAPH 9.4.4

United States sawn hardwood export destinations, 1998



Source: USDA Foreign Agricultural Service, 1999.

Canada's exports of sawn hardwood rose sharply, by 17.9% on lower volumes. While the previous chapter mentioned Québec, Canada's softwood production and trade, the sawn hardwood market in Québec was exceptionally strong in the first quarter of 1999 (*Import/Export Wood Purchasing News*). The active market in Québec was characterised by strong buying activity, but as supplies of hard and soft maple, birch, cherry and basswood are high, there has been pressure to keep prices from rising.

At the beginning of 1999, United States hardwood exports had not recovered from depressed 1998 levels (*Import/Export Wood Purchasing News*). In the first two months of 1999, sawn hardwood moved up 1% on volume to reach $210 million with greatest quantities going to China (as in 1998) and Korea. In contrast, exports to Japan fell by 22% and to the European Union by 11%. However United States exports were recovering in mid 1999 due to higher demand in almost all Asian countries (*Hardwood Review Export* and USDA Foreign Agricultural Service).

Mexico is an important market for American hardwoods and exports have increased since implementation of the North American Free Trade Agreement. For the first four months of 1999, sales to Mexico (mainly of red oak) were up nearly 32% compared to the same period in 1998 (*Hardwood Review Export*).

In mid 1999 the 8.9% fall in the value of the euro during its six-month life has hindered imports of American hardwoods, although Spain, Ireland and France benefited by lower interest rates (*Tropical Timbers*). Outside the euro zone, United States exports to the United Kingdom did not fare better due to contraction in construction.

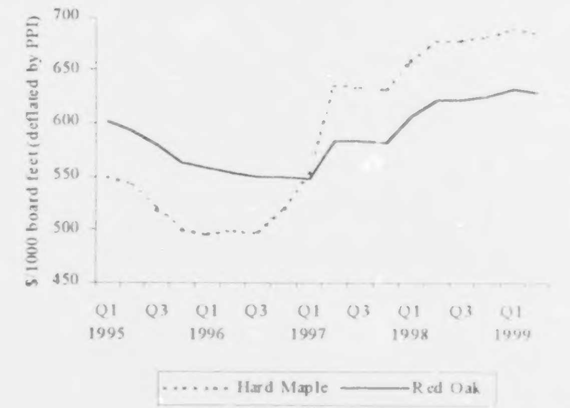
United States *imports* of hardwood, which like softwoods are mostly from Canada (71% for hardwood), rose by 18.2% in 1998. Canada's exports of sawn hardwoods to the United States rose by almost 30% (to approximately 0.9 million m^3) in volume, but only 17% in value (to approximately $200 million).

The remaining 30% of United States imports, about 370,000 m^3, was almost entirely from tropical producing countries (USDA Foreign Agricultural Service). This increase reflects sawnwood only. Figures would be much higher, especially in value, if secondary manufactured products such as furniture were included. As in Europe, exterior furniture made from tropical species like teak is popular. Consumer resistance to purchase tropical woods because of environmental concerns seems to have been overcome as tropical sawnwood imports have been growing strongly over the last five years: by 14.5% in volume and up by more, 24.5% in value to almost $200 million.

With strong United States domestic demand 30.7 million m^3 plus an additional export demand of 2.5 million m^3, coupled with low stocks of both kiln-dried and green sawnwood, hardwood prices have climbed to new records in 1998 and mid 1999 (graph 9.4.5). As mentioned above in the discussion of European imports, there was a weaker demand within the United States for red oak which was reflected in the actual prices shown in the graph: hard maple became more valuable on an actual board foot (or cubic metre) basis than red oak.

GRAPH 9.4.5

United States sawn hardwood prices, 1995 to 1999



Note: Prices for 4/4 inch thick, 1 common grade, Appalachian Region hard maple and red oak sawnwood. Deflated by the United States producer price index with a 1982 base.

Source: *Hardwood Market Report*, 1999.

European importers of United States hardwoods are increasingly purchasing non-traditional species. Ten years ago two species, white and red oak, accounted for 73% of all United States hardwood lumber exports to the European Union (USDA Foreign Agricultural Service). Today United States exports to the EU include sassafras, tulipwood (yellow poplar), willow, sycamore, hackberry, cottonwood, red alder, cherry and other species. There was a growing trend in North America by local craftsmen, government agencies and trade associations to promote character-marked hardwood furniture which incorporates the sound, natural 'defects' such as knots and stain.

As in Europe, wood floors are *à la mode* in North America. While style can never be fully explained, one impetus for wood floors is that they are hypoallergenic, an important attribute in today's society where allergies are becoming more common. In the United States wood flooring is often solid oak in residential and commercial applications, and maple in gymnasiums and health club applications. In 1997 2.6 million m^3 of hardwood went into the manufacture of solid wood flooring and an additional unknown volume into laminated flooring (*Trends in Domestic/Export Hardwood Markets* by B. Hansen and C. West, 1998). In the last two years exports of hardwood flooring have more than doubled to 2.9 million *square* metres (USDA Foreign Agricultural Service).

The hardwood dimension and component industry is the third largest consumer of sawnwood behind pallets and furniture. Dimension is sold semi-finished as an intermediary product which is then further manufactured into furniture, cabinetry and millwork. Consumption of sawn hardwood for dimension production increased by approximately 85% from 1991 and in 1997 was 5.7 million m^3 (Hansen and West, 1998). Hardwood dimension production has grown to approximately 2.8 million m^3 (using the 50% rough conversion factor in the Hansen and West study) as final product manufacturers increased purchases for economic and quality control reasons.

Over the last decade the volume of hardwood dimension exported has grown although it is estimated to have maintained a steady 10% share of United States dimension production (Wood Component Manufacturers Association). More and more United States sawmills are producing higher value-added products like dimension. Rough dimension producers are upgrading their products to produce semi- or fully-machined component parts. The advantage of shipping semi-finished dimension and components is that they are pre-manufactured to rough or final size and do not contain wasteful defects like knots, stain or splits. In addition, buyers know exact costs for the important 'make or buy' decision. (In a 'make or buy' decision a manufacturer chooses, based on cost comparisons, whether to produce (make) a part internally or to out-source (buy) the part.) In mid 1999 the United States dimension producers had order backlogs for Europe and Asia (*Weekly Hardwood Review*).

United States hardwood dimension and component production were expected to reach $325 million in 1998, a 7.7% increase over 1997. Species follow furniture and cabinetry demands: in 1998 red oak was most popular, followed in order by hard maple, tulipwood, white oak, cherry and soft maple.

Railroad ties (sleepers) are a crucial market for hardwood sawmills to 'package' the defects (knots and juvenile wood) from the centre of the log (also known as boxing the heart of the log). Sawn hardwood used in ties increased by one-third from 1991 to 1997 to reach 1.9 million m^3 (Hansen and West reporting statistics of the Railway Tie Association).

Although total railroad mileage continues to decrease, wood has a secure place in the North American tie market. Over 14 million ties were produced in 1998 and the market in 1999 was forecast to be strong (Railway Tie Association). The demand for ties by Mexico has been increasing as well. Considerable additional volumes of preservative-treated wood are used in railroad bridges and culverts.

Non-wood (concrete and steel) ties, which cost 3 to 4 times more, are limited to special applications only. The North American situation is opposite to that of Europe where sawmills have lost most of the rail tie market to concrete. Concrete ties are more expensive to lay, but need less maintenance and are more suited to high-speed passenger trains.

CHAPTER 10

WOOD-BASED PANELS SUPPLY, TRADE AND CONSUMPTION

Highlights

- European consumption of wood-based panels, mainly particle board, increased slightly in 1998 to record levels.
- In North America, consumption of wood-based panels expanded in 1998 at a much more rapid pace than in 1997.
- In the Russian Federation wood-based panels consumption declined in 1998, but remained above 1996 levels.
- Particle board consumption in Europe expanded by almost 2% in 1998 in a difficult market situation.
- Production of OSB continued to increase in 1998 in North America by more than 15%, however, demand outstripped capacity increases and prices turned around and surged to record levels.
- In the United States structural panel sector OSB continued to gain market share over softwood plywood and in 1999 the production volume may exceed plywood.
- In 1998 the tropical hardwood plywood sector has been characterised by cheaper exports as a result of currency devaluations due to the Asian economic crisis.
- Apparent consumption of MDF in Europe in 1998 further increased by 20% to 6.1 million m^3 and during the same period capacity expanded by 15% to 8 million m^3.
- In 1998 engineered wood products in the United States continued to gain market share from dimension lumber (sawnwood); production of laminated veneer lumber (LVL) and wooden I-beams increased by 21% and 25% respectively.

10.1 Overview of wood-based panels markets

Consumption of wood-based panels in Europe increased slightly in 1998 by 0.9% to a new record level of 44.7 million m^3 (table 10.1.1). Particle board, the main European panel with over 72% of total consumption, and medium density fibreboard (MDF) reached record levels in a market characterised by a stagnant demand and signs of oversupply.

A continued strong demand in end-use sectors in North America pushed consumption of wood-based panels upwards also to record levels in 1998 to 52.3 million m^3 or an increase of 7.4%. Oriented strand board (OSB) and to a lesser extent MDF showed higher consumption levels.

In the Russian Federation apparent consumption of wood-based panels seemed to have dropped in 1998 by 13.9% to 2.8 million m^3. However, overall production levels increased by 4.9%.

10.2 Particle board

Particle board apparent consumption in Europe in 1998 reached a new record level of 32.5 million m^3 or 1.9% (graph 10.2.1, table 10.2.1). Production was up 2% at 34 million m^3, but there was an important build-up of stocks due to market stagnation and over capacity (table 10.2.2). Particle board mills have been able to retain their competitive advantage over MDF in the furniture and cabinet markets by producing higher quality panels, particularly for overlay applications. Major cutbacks took place in Italy (-16.4%) and Turkey (-11.7%). European imports and exports expanded by 6.3% and 6.0% respectively.

In North America consumption and production of particle board, excluding OSB, continued their steady increase by 2.1% and 1.2%, respectively (table 10.2.3). Exports dropped in 1998, more significantly in the United States by -24.4% due to lower sales in Asia. Average United States prices of particle board by the

TABLE 10.1.1

Apparent consumption of wood-based panels (excluding veneer sheets) in Europe, the Russian Federation and North America, 1994 to 1998
(million m3)

	Volume					*Per cent of total*	
	1994	*1995*	*1996*	*1997*	*1998*	*1994*	*1998*
EUROPE							
Particle board	27.96	30.25	29.93	31.87	32.48	72.0	72.7
Plywood	6.18	6.40	5.91	6.12	6.16	15.9	13.8
Fibreboard	4.69	5.94	5.96	6.30	6.06	12.1	13.5
Total	38.83	42.59	41.79	44.29	44.71	100.0	100.0
Change on previous year							
- Volume		3.76	-0.80	2.49	0.42		
- Percent		9.7	-1.9	6.0	0.9		
RUSSIAN FEDERATION							
Particle board	2.61	2.05	1.43	2.30	1.78	72.3	62.8
Plywood	0.33	0.27	0.37	0.34	0.42	9.1	14.7
Fibreboard	0.67	0.62	0.43	0.64	0.64	18.6	22.5
Total	3.61	2.94	2.23	3.28	2.83	100.0	100.0
Change on previous year							
- Volume		-0.67	-0.71	1.05	-0.46		
- Percent		-18.5	-24.3	47.3	-13.9		
NORTH AMERICA							
Particle board	19.05	18.66	22.04	24.01	26.52	41.6	50.8
Plywood	19.19	18.90	18.89	17.57	18.39	41.9	35.2
Fibreboard	7.51	6.87	7.14	7.06	7.34	16.5	14.0
Total	45.75	44.43	48.07	48.64	52.25	100.0	100.0
Change on previous year							
- Volume		-1.32	3.64	0.56	3.62		
- Percent		-2.9	8.2	1.2	7.4		

Composite Panel Association were 11.4% lower in 1997 than in 1995.

Production of straw-furnish particle board started at the four mills (two in Canada and two in the United States) which are coming on stream. Prospects for strawboard are good and future expansions have already been announced.

Production of particle board in the Russian Federation increased by 3% in 1998 attaining 1.5 million m^3 but still down from the 2.2 million m^3 produced in 1995.

TABLE 10.2.1

Particle board (wood and non-wood) balance in Europe, the Russian Federation and North America, 1994 to 1998

	1994	*1995*	*1996*	*1997*	*1998*	*Timber Committee estimates a*	
			(million m³)			*for 1998*	*for 1999*
EUROPE							
Production	28.87	30.88	31.34	33.33	34.00	35.02	35.92
Imports	6.69	7.20	6.99	7.78	8.27	7.45	7.34
Exports	7.60	7.83	8.40	9.24	9.80	9.48	9.82
Net trade	0.91	0.63	1.41	1.46	1.53	2.03	2.48
Apparent consumption	27.96	30.25	29.93	31.87	32.47	32.99	33.44
RUSSIAN FEDERATION							
Production	2.63	2.21	1.47	1.49	1.53	1.64	1.80
Imports	0.02	0.02	0.05	0.98	0.33	0.91	0.86
Exports	0.02	0.17	0.10	0.16	0.09	0.17	0.18
Net trade	0.00	0.15	0.05	-0.82	-0.24	-0.74	-0.68
Apparent consumption	2.63	2.06	1.42	2.31	1.77	2.38	2.48
NORTH AMERICA							
Production	19.16	19.74	22.74	24.22	26.50	24.97	25.51
Imports	3.79	3.72	4.66	6.21	7.29	6.18	6.23
Exports	3.90	4.80	5.36	6.43	7.27	6.91	7.12
Net trade	0.11	1.08	0.70	0.22	-0.02	0.74	0.90
Apparent consumption	19.05	18.66	22.04	24.00	26.52	24.24	24.62

[a] At September 1998 session. The Committee's estimates for 1998 and 1999 have been adjusted to make them comparable with the historical (actual) data for 1994-1998.

TABLE 10.2.2

Production and trade of particle board (including non-wood), 1995 to 1998

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
			(1000 m^3)		*Volume*	*Per cent*
PRODUCTION						
EUROPE	30880	31341	33335	34004	670	2.0
Germany	8902	8584	9152	9487	335	3.7
France	2733	3030	3275	3511	236	7.2
Belgium-Luxembourg	2876	3087	2565	2482	-83	-3.2
Poland	1466	1747	2072	2467	395	19.1
Italy	2450	2205	2750	2300	-450	-16.4
United Kingdom	2118	2164	2175	2287	112	5.1
Spain	1863	1970	1970	1970	0	0.0
Austria	1700	1700	1771	1800	29	1.6
Turkey	1243	1193	1728	1525	-203	-11.7
Czech Republic	587	635	737	790	53	7.2
Portugal	650	695	695	695	0	0.0
Sweden	632	577	612	650	38	6.2
Switzerland	564	530	501	524	23	4.6
Norway	390	384	397	492	95	23.9
Finland	475	605	475	455	-20	-4.2
Other countries	2231	2235	2460	2569	110	4.5
Russian Federation	2206	1472	1490	1534	44	3.0
Canada	5309	6754	7961	8652	691	8.7
United States	14429	15985	16263	17852	1589	9.8
North America	19738	22739	24224	26504	2280	9.4
EXPORTS						
EUROPE	7831	8401	9241	9797	555	6.0
Belgium-Luxembourg	1942	1930	2065	2037	-28	-1.4
Germany	1245	1296	1544	1641	97	6.3
France	1000	1206	1252	1297	45	3.6
Austria	1025	1134	1204	1234	30	2.5
Czech Republic	230	312	381	405	24	6.3
Switzerland	376	400	395	378	-17	-4.3
Sweden	133	147	179	354	175	97.8
Portugal	363	341	430	351	-79	-18.4
Spain	205	249	249	249	0	0.0
Norway	199	203	196	208	12	6.1
Italy	91	91	158	202	44	27.8
United Kingdom	254	255	198	197	-1	-0.5
Other countries	769	837	990	1244	253	25.6
Russian Federation	169	96	163	93	-70	-42.9
Canada	4302	5198	6072	7030	958	15.8
United States	496	158	353	244	-109	-30.9
North America	4798	5356	6425	7274	849	13.2
IMPORTS						
EUROPE	7201	6989	7780	8274	493	6.3
Germany	1755	1559	1630	1637	7	0.4
United Kingdom	1190	1185	1119	1107	-12	-1.1
Netherlands	721	674	726	726	0	0.0
France	690	638	613	656	43	7.0
Denmark	306	290	450	642	192	42.7
Italy	340	340	644	642	-2	-0.3
Poland	310	325	471	517	46	9.8
Spain	339	446	446	446	0	0.0
Sweden	293	263	291	303	12	4.1
Other countries	1257	1270	1390	1598	207	14.9
Canada	230	301	262	301	39	14.9
United States	3490	4359	5948	6990	1042	17.5
North America	3720	4660	6210	7291	1081	17.4

GRAPH 10.2.1

Consumption of particle board, 1994 to 1998

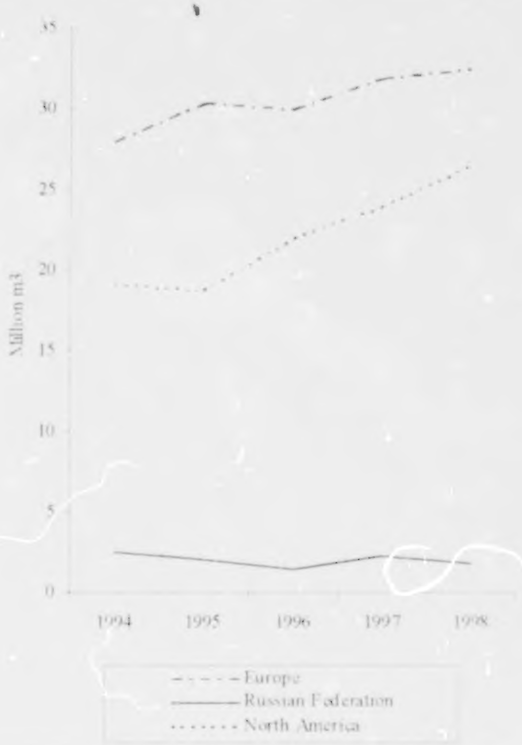


TABLE 10.2.3

Particle board balance (excluding OSB) in Canada and the United States, 1997 and 1998
(1000 m^3)

	1997	*1998*	*Change %*
Canada			
Production	2,284	2,347	2.8
Imports	201	242	20.4
Exports	1,124	1,077	-4.2
Apparent consumption	1,361	1,512	11.1
United States			
Production	7,852	7,916	0.8
Imports	1,282	1,238	-3.4
Exports	205	155	-24.4
Apparent consumption	8,929	8,999	0.8

10.3 Oriented strand board (OSB)

According to the FAO classification OSB is included in particle board. However because of the importance of the product and because separate data are available for OSB, this product is examined separately. The use of OSB for structural applications is not analogous to the use of particle board in furniture type applications.

Consumption and production of OSB (excluding particle board) continued to increase in North America at a rapid pace, 16.7% and 15.2% respectively (table 10.3.1). In the structural panel market, OSB is gaining market share and in 1999 its output may surpass for the first time that of softwood plywood. Strong demand in the United States construction sector has rapidly absorbed the new OSB capacity and the deep fall in prices in 1996 and early 1997 shifted to record high levels (graph 10.3.1).

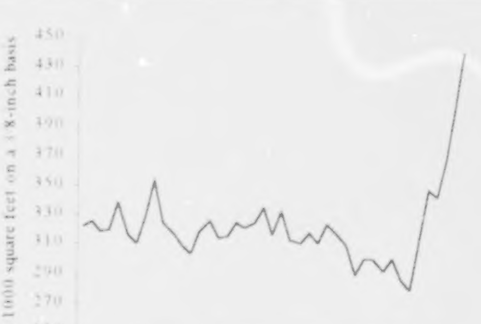
TABLE 10.3.1

OSB balance in Canada and the United States, 1997 and 1998
(1000 m^3)

	1997	*1998*	*Change %*
Canada			
Production	5,677	6,305	11.4
Imports	60	59	-1.7
Exports	4,948	5,953	20.3
Apparent consumption	789	411	-47.9
United States			
Production	8,411	9,936	18.1
Imports	4,666	5,752	23.3
Exports	148	89	-39.9
Apparent consumption	12,929	15,599	20.7

GRAPH 10.3.1

North American structural panel composite, 1996 to 1999



Source *: Random Lenghts Exports, 1999.*

Production in the five European OSB mills increased by 16.7% in 1998 exceeding the 1 million m^3 mark.

10.4 Plywood

In 1998 plywood consumption in Europe increased marginally by 0.9% to 6.2 million m^3, as production dropped by -1.3% and imports, mainly from South East Asia increased by 8.1% (graph 10.4.1, tables 10.4.1 and 10.4.2).

In North America apparent consumption of plywood attained 18.4 million m^3 or an increase of 4.7%. Production in the United States further fell by 1.0% in spite of high structural panel prices and mostly due to raw material availability. Imports of hardwood plywood mainly from Indonesia and Malaysia increased favoured by currency devaluations as a result of the Asian crisis.

Plywood production in 1998 in the Russian Federation was up 16% to 1.1 million m^3 the highest level since 1992. Exports also increased by 14.6% to 723,000 m^3.

GRAPH 10.4.1

Consumption of plywood, 1994 to 1998

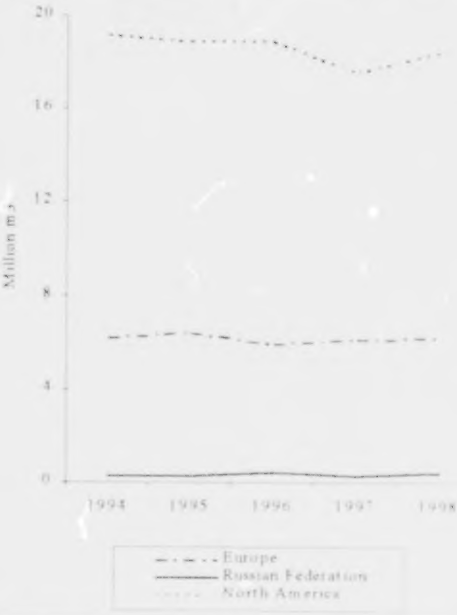


TABLE 10.4.1

Plywood balance in Europe, the Russian Federation and North America, 1994 to 1998

	1994	*1995*	*1996*	*1997*	*1998*	*Timber Committee estimates* [a]	
			(million m^3)			*for 1998*	*for 1999*
EUROPE							
Production	3.67	3.63	3.67	3.77	3.72	3.75	3.79
Imports	4.42	4.56	4.31	4.62	4.99	4.74	4.77
Exports	1.91	1.79	2.08	2.27	2.56	2.34	2.34
Net trade	-2.51	-2.77	-2.23	-2.35	-2.43	-2.40	-2.43
Apparent consumption	6.18	6.40	5.91	6.12	6.16	6.15	6.22
RUSSIAN FEDERATION							
Production	0.89	0.94	0.97	0.94	1.09	1.15	1.27
Imports	0.00	0.00	0.01	0.03	0.04	0.03	0.03
Exports	0.57	0.67	0.61	0.63	0.72	0.73	0.75
Net trade	0.57	0.67	0.60	0.60	0.68	0.70	0.72
Apparent consumption	0.33	0.27	0.37	0.34	0.42	0.45	0.55
NORTH AMERICA							
Production	19.21	18.97	18.79	17.73	17.48	16.93	16.58
Imports	1.83	2.14	2.35	2.30	2.52	2.13	2.15
Exports	1.86	2.21	2.25	2.46	1.61	2.29	2.38
Net trade	0.03	0.07	-0.10	0.16	-0.91	0.16	0.23
Apparent consumption	19.19	18.90	18.89	17.57	18.39	16.77	16.35

[a] At September 1998 session. The Committee's estimates for 1998 and 1999 have been adjusted to make them comparable with the historical (actual) data for 1994-1998.

TABLE 10.4.2

Production and trade of plywood, 1995 to 1998

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
		(1000 m³)			*Volume*	*Per cent*
PRODUCTION						
EUROPE	3,635	3,671	3,766	3,719	-47	-1.3
of which						
Finland	778	869	987	992	5	0.5
France	559	537	566	535	-31	-5.5
Germany	498	512	448	428	-20	-4.5
Italy	418	402	414	420	6	1.4
Spain	210	...	...	...		
Austria	150	...	...	...		
Poland	115	109	132	136	4	3.0
Sweden	108	119	113	114	1	0.9
Israel	109	...	...	...		
Czech Republic	77	100	110	108	-2	-1.8
Other countries	613	554	527	517	-10	-2.0
Russian Federation	939	972	943	1,094	151	16.0
Canada	1,831	1,814	1,830	1,750	-80	-4.4
United States	17,140	16,975	15,897	15,732	-165	-1.0
North America	18,971	18,789	17,727	17,482	-245	-1.4
EXPORTS						
EUROPE	1,792	2,077	2,269	2,550	281	12.4
of which						
Finland	668	794	861	831	-30	-3.5
Belgium-Luxembourg	88	88	101	355	254	250.8
France	183	214	223	221	-2	-1.0
Austria	130	150	166	180	14	8.4
Germany	149	135	152	161	9	5.9
Italy	96	117	125	139	14	11.2
Other countries	478	579	641	663	22	3.5
Russian Federation	670	612	631	723	92	14.6
Canada	818	870	863	748	-115	-13.3
United States	1,395	1,384	1,595	858	-737	-46.2
North America	2,213	2,254	2,458	1,606	-852	-34.7
IMPORTS						
EUROPE	4,556	4,314	4,619	4,992	373	8.1
of which :						
Germany	1,177	975	1,095	1,074	-21	-1.9
United Kingdom	1,127	1,132	947	963	16	1.7
Netherlands	552	522	556			
Belgium-Luxembourg	146	215	313	519	206	65.8
Italy	323	295	312	378	66	21.2
France	260	256	310	325	15	4.8
Denmark	188	167	225	295	70	31.1
Sweden	112	135	143	147	4	2.8
Other countries	671	617	718	735	17	2.3
Canada	353	424	431	366	-65	-15.0
United States	1,791	1,930	1,868	2,150	282	15.1
North America	2,144	2,354	2,299	2,516	217	9.5

10.5 Fibreboard

Partial fibreboard production figures, all types combined, in Europe in 1998 show an increase of 1.6% to 6.6 million m^3. This figure is well below the actual situation as the rapid expansion of the MDF industry during the last years has not been reflected in the data received from a few major producer countries including Germany (graph 10.5.1, tables 10.5.1 and 10.5.2). Of the total production the part attributed to insulating board can be considered accurate, i.e. apparent consumption further dropped in 1998 by 13.9% to 525,000 m^3. Insulating board was 732,000 m^3 in 1995.

In North America consumption of fibreboard as a whole increased by 4% in 1998 to 7.3 million m^3. In the United States hardboard consumption increased by 7.2% to 1.4 million m^3 while insulating board showed a small drop of -1.3% to 2.5 million m^3.

Fibreboard consumption in the Russian Federation in 1998 attained 636,000 m^3 showing little change from 1997.

GRAPH 10.5.1

Consumption of fibreboard, 1994 to 1998

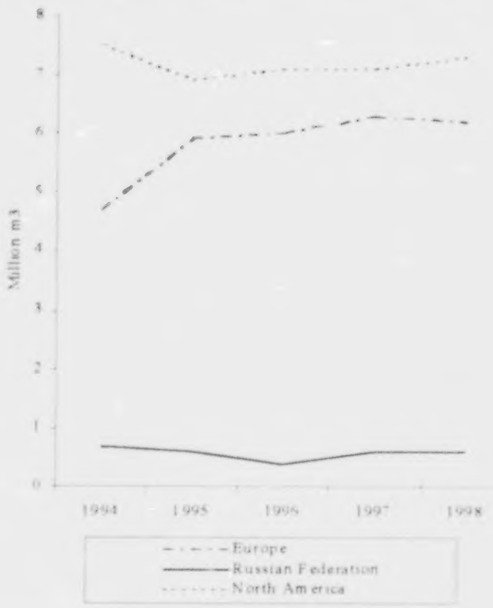


TABLE 10.5.1

Fibreboard balance in Europe, the Russian Federation and North America, 1994 to 1998

	1994	*1995*	*1996*	*1997*	*1998*	*Timber Committee estimates* [a] *for 1998*	*Timber Committee estimates* [a] *for 1999*
			(million m^3)				
EUROPE							
Production	4.94	6.02	6.10	6.49	6.59	6.84	7.98
Imports	2.48	2.78	3.14	3.86	4.08	3.83	3.34
Exports	2.73	2.85	3.29	4.05	4.61	4.21	4.49
Net trade	0.25	0.07	0.15	0.19	0.53	0.38	1.15
Apparent consumption	4.69	5.95	5.95	6.30	6.06	6.46	6.83
RUSSIAN FEDERATION							
Production	0.77	0.75	0.59	0.75	0.71	0.74	0.76
Exports	0.10	0.13	0.17	0.17	0.16	0.19	0.20
Apparent consumption	0.67	0.62	0.42	0.58	0.55	0.55	0.56
NORTH AMERICA							
Production	7.87	7.23	7.38	7.32	7.58	7.56	7.68
Imports	0.70	0.68	0.91	1.07	1.07	1.07	1.07
Exports	1.06	1.07	1.15	1.33	1.30	1.33	1.37
Net trade	0.36	0.39	0.24	0.26	0.23	0.26	0.30
Apparent consumption	7.51	6.83	7.14	7.06	7.34	7.30	7.38

[a] At September 1998 session. The Committee's estimates for 1998 and 1999 have been adjusted to make them comparable with the historical (actual) data for 1994-1998.

TABLE 10.5.2

Production and trade of fibreboard, 1995 to 1998

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
		(1000 m³)			*Volume*	*Per cent*
PRODUCTION						
EUROPE :						
Hardboard [a]	5,239	5,338	5,846	5,969	123	2.1
Insulating board	776	760	640	622	-18	-2.8
Total	6,015	6,098	6,486	6,591	105	1.6
of which :						
Poland	650	653	733	972	239	32.6
Germany	...	...	...	...	...	...
Italy	915	800	700	800	100	14.3
Spain	600	590	...	...	...	...
France	477	483	548	556	8	1.5
United Kingdom	408	420	460	435	-25	-5.4
Portugal	387	...	...	...	...	...
Ireland	246	274	330	...	...	...
Turkey	131	301	573	330	-243	-42.4
Other countries	1,347	1,336	1,311	1,337	26	2.0
Russian Federation	748	589	749	710	-39	-5.2
Canada	717	894	1,056	1,248	192	18.2
United States	6,508	6,483	6,262	6,332	70	1.1
North America	7,225	7,377	7,318	7,580	262	3.6
EXPORTS						
EUROPE	2,853	3,286	4,053	4,606	553	13.6
of which						
Germany	320	522	770	1,007	237	30.8
Italy	400	411	574	483	-91	-15.9
Poland	298	293	332	442	111	33.4
Portugal	250	341	407	384	-23	-5.7
France	320	338	356	377	21	5.9
Spain	248	290	286	...	...	...
Other countries	1,017	1,091	1,329	1,628	298	22.4
Russian Federation	134	173	174	165	-9	-5.2
Canada	365	497	748	882	133	17.8
United States	706	650	582	422	-158	-27.3
North America	1,071	1,147	1,330	1,304	-25	-1.9
IMPORTS						
EUROPE	2,778	3,143	3,865	4,081	216	5.6
of which :						
United Kingdom	510	602	785	647	-138	-17.6
Germany	441	491	557	637	80	14.4
Netherlands	294	400	457	...	...	...
Italy	226	279	304	331	27	8.9
Poland	30	173	129	257	128	98.7
France	116	143	190	245	55	28.9
Belgium-Luxembourg	199	195	150	205	55	37.0
Spain	134	204	204	...	...	...
Other countries	829	656	1,088	1,097	9	0.8
Canada	154	164	157	160	2	1.3
United States	524	750	918	908	-634	-53.1
North America	678	914	1,075	1068	-632	-46.8

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[a] Including medium density fibreboard

10.6 Medium density fibreboard

According to the new European Panel Federation (EPF), in 1998 apparent consumption of MDF increased by 20% to 6.1 million m^3 and during the same period, capacity expanded to 8 million m^3 or 15%. Further expansions are announced in Europe and world-wide, which will intensify competition both within Europe and its export markets.

In North America MDF continued its strong growth. In the United States production rose by 4.5% to 2.5 million m^3. In Canada MDF and hardboard production combined went up by 30.4% to 823,000 m^3. Exports, mostly to the United States reached 772,000 m^3. MDF production capacity is expanding at a faster pace than production.

10.7 Engineered wood products

In 1998 engineered wood products in the United States continued to gain market share from dimension lumber, and are estimated to represent 4.6% of the North American lumber supply (*Wood Technology*). Production of laminated veneer lumber (LVL) and wooden I-beams increased by 21% and 25%, respectively and this trend is expected to continue in the coming years. Dimension lumber is the United States is the term for construction sawnwood such as 2x4 studs.

CHAPTER 11

WOODPULP, PULPWOOD AND PAPER AND PAPERBOARD SUPPLY, TRADE AND CONSUMPTION

Highlights

- In 1998 as a whole, production of paper and paperboard was slightly higher in Europe than in 1997, but lower in North America, despite higher consumption (imports rose and exports fell).
- North American pulp production fell, but in Europe, the level remained roughly unchanged; recovered paper and eucalyptus pulp continued to increase their share of total paper-making furnish.
- In 1998 world pulp markets were characterized by oversupply and weak prices, but production cutbacks restored market balance and prices were rising in mid-1999.
- Volumes of European pulpwood removals rose, but market conditions were generally stable or weak.
- European pulpwood imports from Russia and the Baltic countries, mostly to Finland and Sweden, continued to rise.
- In North America the pulpwood oversupply and high stock levels resulted in steeply falling prices.

This chapter analyses trends on markets for pulpwood, preceded by a brief discussion of developments for pulp and paper. It should be borne in mind that in the standard ECE/FAO terminology, "pulpwood" refers to all wood used as raw material for the manufacture of pulp, particle board and fibreboard. Therefore "pulpwood" includes "pulpwood, round and split" ("round pulpwood"), which may be either coniferous or non-coniferous, and "residues, chips and particles", a by-product of the sawmilling and plywood industries. (A diagram of the pulpwood breakdown is at the beginning of the roundwood chapter 7.)

11.1 Paper and paperboard

During 1998, apparent consumption of paper and paperboard rose moderately in Europe and North America (by 1.3% and 2.4% respectively). European apparent consumption was at just over 80 million m.t. a record level. In North America, consumption reached 87.5 million m.t. but this was still well below the 96.6 million m.t. recorded in 1995. In Russia, however, apparent consumption fell quite sharply, after the temporary improvement recorded in 1997.

Production of paper and paperboard in Europe rose by just over 2%, to 87.7 million m.t. with similar growth for all major assortments (table 11.1.1). Newsprint rose to a record level. Strong growth was recorded for production of "other printing and writing paper" (the major growth sector, linked to copiers and printers in homes and offices) for Finland, Germany and Austria. However, Europe's fourth largest producer France, fell by over 10%.

In the United States, production of paper and paperboard dropped by 0.8%, to 75.8 million m.t., although apparent consumption rose by 1.7%. The country's trade balance changed quite strongly; imports rose by 1 million m.t. and exports fell by a similar amount, so that United States net imports rose from 3.4 million m.t. in 1997 to 5.4 million m.t. in 1998. This trend may be attributed to the rise in the dollar exchange rate. Canadian apparent consumption also increased, by 0.7 million m.t. despite a fall in production of 0.4 million m.t.; exports fell by over 1 million m.t., so it is possible that stocks have risen.

TABLE 11.1.1

Production of paper and paperboard in Europe, the Russian Federation and North America, 1995 to 1998

(1000 m.t.)

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
					Volume	*Per cent*
NEWSPRINT						
EUROPE	10,203	9,617	10,502	10,730	228	2.2
of which :						
Sweden	2,346	2,283	2,411	2,478	67	2.8
Germany	1,726	1,572	1,618	1,630	12	0.7
Finland	1,425	1,327	1,470	1,483	13	0.9
United Kingdom	873	976	1,030	1,043	13	1.2
France	890	783	909	922	13	1.4
Norway	973	913	798	835	37	4.6
Other countries	1,969	1,763	2,266	2,339	73	3.2
Russian Federation	1,457	1,245	1,198	1,394	196	16.4
Canada	9,226	9,025	9,205	8,623	-582	-6.3
United States	6,351	6,303	6,544	6,501	-43	-0.7
North America	15,577	15,328	15,749	15,124	-625	-4.0
OTHER PRINTING AND WRITING PAPER						
EUROPE	28,830	28,695	31,915	32,644	729	2.3
of which :						
Finland	6,457	6,014	7,121	7,700	579	8.1
Germany	5,872	5,702	6,390	6,620	230	3.6
France	3,096	3,141	3,350	3,004	-346	-10.3
Italy	2,594	2,662	2,751	2,780	29	1.1
Sweden	2,047	2,170	2,459	2,545	86	3.5
Austria	1,764	1,787	1,826	2,003	177	9.7
Other countries	7,000	7,219	8,018	7,992	-26	-0.3
Russian Federation	486	433	441	467	26	5.9
Canada	4,882	4,689	4,966	5,113	147	3.0
United States	23,042	22,553	24,328	24,174	-154	-0.6
North America	27,924	27,242	29,294	29,287	-7	0.0
OTHER PAPER AND PAPERBOARD						
EUROPE	40,220	40,382	43,335	44,293	958	2.2
of which :						
Germany	7,229	7,459	7,945	8,061	116	1.5
Italy	4,033	4,114	5,101	5,276	175	3.4
France	4,633	4,632	4,884	5,132	248	5.1
Sweden	4,766	4,565	4,886	4,856	-30	-0.6
United Kingdom	3,454	3,460	3,670	3,667	-3	-0.1
Finland	3,060	3,100	3,558	3,520	-38	-1.1
Other countries	13,045	13,052	13,291	13,781	490	3.7
Russian Federation	2,130	1,546	1,703	1,679	-24	-1.4
Canada	4,605	3,758	3,805	3,805	0	0.0
United States	56,133	53,115	45,577	45,137	-440	-1.0
North America	60,738	56,873	49,382	48,942	-440	-0.9

However, in both Europe and North America, the broadly positive data for the year as a whole conceal a different trend if monthly or quarterly data are analyzed. The latter show a progressive decline over the year, which continued over the first months of 1999. Quarterly data from the Confederation of the European Paper Industries (CEPI) show a drop for every quarter in 1998. The first quarter of 1999, although higher than the last of 1998 was below that of the first quarter of 1998. Monthly data for the United States from American Forest & Paper Association (AF&PA) show rather similar levels in 1997, 1998 and the first months of 1999 for production of paper. However paperboard production in the second half of 1998 was significantly lower than in the corresponding period of 1997. In January through May 1999 however, production of paperboard was only marginally below the level of early 1998. For the first quarter of 1999, CEPI reported the following changes (supplied to it by other industry associations) compared to the first quarter of 1998:

Western Europe (CEPI):	-2.1%
United States (AF&PA):	-0.6%
Canada (CPPA):	+6.7%
Japan (JPPA):	-1.1%

(CPPA is the Canadian Pulp and Paper Association and JPPA is the Japanese Pulp and Paper Association.)

The positive trend for Canada (which was specially marked for newsprint, uncoated mechanical, uncoated woodfree and sanitary and household grades) contrasts strongly with that for the other producers.

11.2 Woodpulp

Total European pulp production in 1998 showed little change over 1997 (table 11.2.1). Increases in Sweden, Austria, Poland and especially Finland, were in contrast to falls in Norway and France.

Russia recovered some of the ground lost in 1996 and 1997 as production of both mechanical and chemical pulp increased in 1998. This demonstrated that in certain circumstances, notably when there is an active international commodity market, it is possible to raise the level of Russian production. It is believed that much of the Russian production was exported.

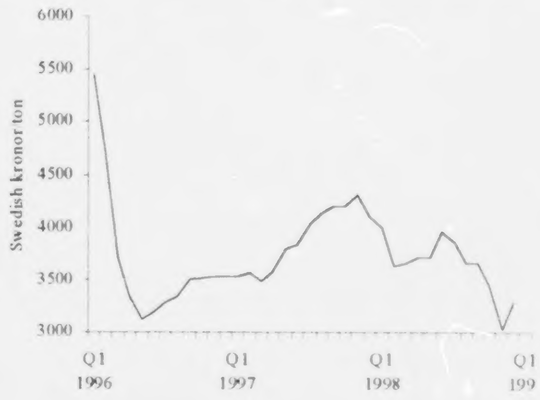
In North America on the other hand, pulp production (chemical and mechanical combined) fell by 2.5% or nearly 2.2 million m.t. (a drop of 0.95 million m.t. for Canadian mechanical pulp and 1.27 million m.t. for United States chemical pulp).

Apart from the rather weak levels of production of paper and paperboard described in the previous section, there are other factors influencing the level of ECE region pulp production, notably the continued growth in use of recovered fibre and the growth in the importance of hardwood, especially eucalyptus, pulp. Eucalyptus pulp now dominates world commodity trade in hardwood pulp and comes essentially from outside the ECE region (with the exception of Iberia). Tropical plantation-based producers of eucalyptus and other hardwood pulps are now the world's lowest cost producers and as such exercise a strong influence on the markets of both hardwood and softwood pulps (which to a certain extent are substitutes for each other, at least in the medium term).

Although only a relatively small part of pulp production is "market pulp" (i.e. pulp produced

GRAPH 11.2.1

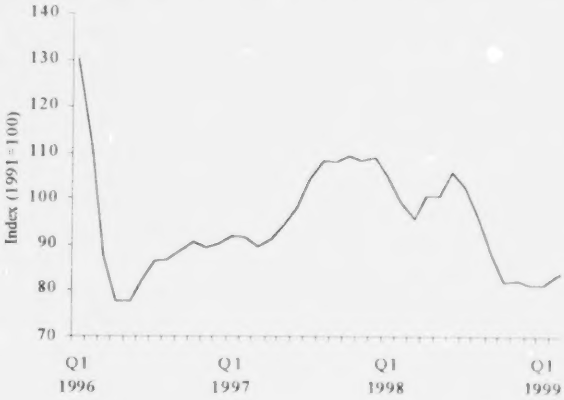
Swedish export price for chemical pulp, 1996 to 1999



Source: "Forest Products Prices, 1996-1998", *Timber Bulletin*, UN-ECE/FAO, 1999.

GRAPH 11.2.2

Import price index for chemical pulp in Germany, 1996 to 1999



Source: ZMP, official statistics, 1999.

specially for commodity markets, rather than from integrated production facilities), developments for this assortment give a strong signal to other parts of the sector. These developments influence profitability of pulp mills and thereby their ability to pay for pulpwood. For that reason, it is worth describing recent trends for market pulp.

Conditions on world pulp markets are determined by a delicate balance between real final demand, production capacity, stocks and the perceptions of market participants as to the short-term outlook. This leads to a rather cyclical market with occasional very strong and rapid price movements. (The most spectacular recent example of the latter was in 1995/96

TABLE 11.2.1

Production of woodpulp in Europe, the Russian Federation and North America, 1995 to 1998

(1000 m.t.)

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
					Volume	*Per cent*
MECHANICAL WOODPULP						
EUROPE	12,904	11,809	13,247	13,265	18	0.1
of which :						
Finland	3,797	3,489	4,469	4,637	168	3.8
Sweden	2,861	2,753	2,959	3,018	59	2.0
Norway	1,627	1,502	1,534	1,457	-77	-5.0
Germany	1,266	1,133	1,220	1,191	-29	-2.4
France	934	757	845	762	-83	-9.8
United Kingdom	548	490	537	509	-28	-5.2
Other countries	1,871	1,685	1,683	1,691	8	0.5
Russian Federation	1,245	976	899	1,060	161	17.9
Canada	11,550	10,973	11,354	10,402	-952	-8.4
United States	6,167	5,918	5,401	5,437	36	0.7
North America	17,717	16,891	16,755	15,839	-916	-5.5
CHEMICAL WOODPULP [a]						
EUROPE	24,178	23,581	25,685	25,649	-36	-0.1
of which :						
Sweden	7,326	7,094	7,535	7,523	-12	-0.2
Finland	6,291	6,204	7,149	7,247	98	1.4
France	1,884	1,758	1,985	1,915	-70	-3.5
Portugal	1,617	1,594	...	...	...	...
Spain	1,481	...	...	...	...	...
Austria	1,229	1,206	1,251	1,274	23	1.8
Poland	767	776	828	867	39	4.7
Norway	930	839	900	846	-54	-6.0
Germany	718	719	763	782	19	2.5
Czech Republic	440	411	453	490	37	8.2
Slovakia	249	241	386	339	-47	-12.2
Other countries	1,245	1,259	1,360	1,291	-69	-5.1
Russian Federation	3,828	2,841	2,851	2,880	29	1.0
Canada	14,093	13,620	13,795	13,798	3	0.0
United States	60,927	59,506	54,964	53,696	-1268	-2.3
North America	75,020	73,126	68,759	67,494	-1265	-1.8

[a] Including semi-chemical woodpulp and dissolving grades.

when the benchmark price fell from nearly $1000 to about $400 in a few months).

At the beginning of 1998, pulp shipments rose and stocks fell, leading to a rise in prices (graphs 11.2.1 and 11.2.2). However, as feared in the last *Forest Products Annual Market Review* (prepared in July 1998) the situation was reversed in summer 1998. Shipments fell below production, stocks rose and prices fell. World bleached market pulp stocks, in August 1998, passed 3 million m.t. (*PaperTree Letter*). By the end of the year, the price of the benchmark grade, Northern Bleached Softwood Kraft (NBSK), fell to about $425/ton. However already in autumn 1998, mills had cut production levels, in some cases by permanent closures, thus steadily reducing stocks. From early 1999, market pulp prices have been rising steadily because of the new-found market balance, to about $520/ton in June 1999. Expert opinion is that this increase will hold for the time being.

The fact that the benchmark price for softwood pulp is in dollars means that the cost to buyers is influenced by both the pulp price level and currency movements. Thus the increase in NBSK price in 1999 was exacerbated for most European buyers by the fall in the euro over the same period. The hardwood pulp trade however is denominated in euros – the currency of the countries where most hardwood market pulp is sold.

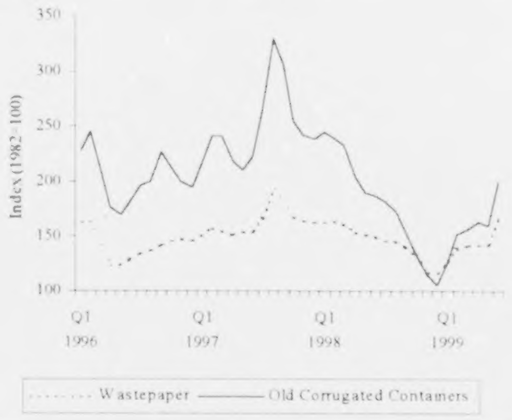
Although statistics are not available at present on supply, trade consumption and trade of recovered fibre, it is clear that the use of this raw material continues to grow in absolute and relative terms, especially in those countries which have large populations and therefore resources of recovered paper. The best example of this is Germany, Europe's largest producer of paper and paperboard, where recovered paper is the primary raw material for manufacture of paper and paperboard.

The price of recovered fibre tends to follow that of market pulp: indeed in the United States, the decline in recovered fibre prices in the second half of 1998 and their recovery in early 1999 reflects rather precisely the trend described above for chemical market pulp (graph 11.2.3).

An interesting recent phenomenon is the developments of markets and trade in "waste paper pulp" or "deinked market pulp" i.e. recovered fibre deinked and then dried for transport and sale. Increasingly paper producers wish to incorporate recovered fibre into their product, for cost reasons or to meet targets (commercial or legally imposed) for "recycled content", but do not have the possibility to install a deinking plant. In both Europe and North America, companies are now supplying deinked recovered fibres, ready for incorporation into the fibre furnish. This material is also entering international trade and should in future be monitored separately.

GRAPH 11.2.3

Prices of old corrugated containers and waste paper in the United States, 1996 to 1999



Source: Bureau of Labour and Statistics, United States, 1999.

11.3 Markets for pulpwood

This section presents trends for supply, trade and prices of pulpwood. Unlike pulp markets, which are truly global, those for pulpwood are more local or regional in nature, and strongly influenced by local conditions, such as the economic health of a mill, or developments for other forest products. In particular there is competition for roundwood between sawmills, pulpmills, panel manufacturers and, in some areas, energy producers; furthermore sawmill residues are a major component of pulpwood supply, so that there is a degree of symbiosis between the two sectors.

Increasingly fibre from used wood products such as pallets or demolition wood is used as "pulpwood". In particular it is a raw material for some panels. There is at present however, no statistical system in place to monitor this.

On the basis of data for production of pulp and panels, it is possible to estimate "derived pulpwood requirements". In Europe as a whole, "derived pulpwood requirements" in 1998 were at about the same level as in 1997 (table 11.3.1). For Europe, increases in Finland, Poland, Germany and Sweden, compensated falls in Italy, Norway and France (table 11.3.2).

TABLE 11.3.1

Derived pulpwood requirements in Europe and North America, 1995 to 1998

(million m^3 equivalent) [a]

	1995	*1996*	*1997*	*1998*
EUROPE				
Mechanical woodpulp	32.26	29.52	33.12	33.16
Semi-chemical woodpulp	4.33	4.17	4.62	4.48
Chemical woodpulp [b]	109.13	106.52	115.90	115.94
Particle board	43.23	43.88	46.67	47.61
Fibreboard	10.83	10.98	11.67	11.86
Total	199.77	195.06	211.98	213.05
Change on previous year				
- Volume		-4.71	16.92	1.07
- Per cent		-2.4	8.7	0.5
NORTH AMERICA				
Mechanical woodpulp	44.29	42.23	41.89	39.60
Semi-chemical woodpulp	13.00	12.71	12.44	12.32
Chemical woodpulp [b]	339.29	330.67	310.14	304.26
Particle board	27.63	31.83	33.91	37.11
Fibreboard	13.00	13.16	13.17	13.64
Total	437.22	430.60	411.55	406.93
Change on previous year				
- Volume		-6.62	-19.05	-4.62
- Per cent		-1.5	-4.4	-1.1

[a] Equivalent volume of wood in the rough, calculated from data on production of pulp and panels, using the following conversion factors :

Mechanical woodpulp : 1 m.t. = 2.5 m^3 equivalent
Semi-chemical woodpulp : 1 m.t. = 3.0 m^3 equivalent
Chemical woodpulp (incl. dissolving) : 1 m.t. = 4.8 m^3 equivalent
Particle board : 1 m^3 = 1.4 m^3 equivalent
Fibreboard : 1 m^3 = 1.8 m^3 equivalent

[b] Including dissolving pulp.

In North America, on the other hand, pulpwood requirements fell, by nearly 7 million m^3, because of the falls in pulp production (still by far the largest consuming sector, 87% of the total, despite the growth for panels, notably OSB and, to a lesser extent, MDF). According to the American Pulpwood Association (APA), pulpwood receipts in the United States (i.e. the volume of pulpwood received by mills) fell by 1.8% in 1998. Although the decline was more than two times greater for softwood, it still accounts for 65% of the total. Softwood still accounts for 65% of the total. The decline affected all regions except the north-east. Of the national total of 247 million tons of pulpwood receipts, 183 million tons (75%) were in the APA South region (South Central and South Atlantic). In Canada, pulpwood consumption was rather stable between May and November 1998, then rose quite sharply to May 1999 (source Statistics Canada).

European pulpwood removals increased by about 2.9 million m^3 (2.6%) in 1998 with higher than average increases in Finland, and a fall in France (table 11.3.3). German pulpwood removals rose sharply after the steep fall in 1997, to reach a more "normal" level of 10.4 million m^3.

In the United States, pulpwood removals rose by 0.4%, to 185.1 million m^3. This rise, combined with the fall in pulpwood receipts reported by APA (see above) would indicate that pulpwood stocks have risen; indeed this is confirmed by the fall in prices which is described below.

TABLE 11.3.2

Derived pulpwood requirements in selected countries, 1995 to 1998
(million m^3 equivalent) [a]

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
					Volume	*Per cent*
Finland	39.65	38.72	45.42	46.28	0.86	1.9
Sweden	43.15	41.71	44.29	44.51	0.23	0.5
Germany	20.61	19.84	21.12	21.55	0.43	2.1
France	15.86	15.26	17.00	16.80	-0.21	-1.2
Spain	10.96	11.09	...	...	...	...
Austria	9.47	9.24	9.65	9.79	0.15	1.5
Portugal	9.37	9.32	...	...	...	...
Poland	7.01	7.37	7.86	8.57	0.72	9.1
Norway	9.20	8.45	8.70	8.38	-0.32	-3.6
United Kingdom	5.34	5.27	5.47	5.48	0.01	0.1
Belgium-Luxembourg	5.44	5.74	5.08	4.96	-0.12	-2.3
Italy	6.29	5.62	6.45	4.83	-1.62	-25.1
Canada	104.60	103.19	106.78	105.73	-1.05	-1.0
United States	332.62	327.41	288.67	282.77	-5.90	-2.0

[a] Equivalent volume of wood in the rough calculated from data on production of pulp and panels using the conversion factors given in the footnote a/ to previous table.

TABLE 11.3.3

Removals of Pulpwood, 1995 to 1998
(million m^3)

	1995	*1996*	*1997*	*1998*	*Change 1997 to 1998*	
					Volume	*Per cent*
EUROPE	116,081	106,560	110,076	112,992	2,916	2.6
Finland	22,968	20,968	22,781	24,053	1,272	5.6
Sweden	24,600	21,400	21,800	22,200	400	1.8
France	11,414	9,698	10,978	10,800	-178	-1.6
Germany	11,738	10,241	8,738	10,417	1,679	19.2
Russian Federation	23,300	18,761	16,276	16,520	244	1.5
Canada	31,089	...	...	...	...	...
United States	150,000	149,263	153,240	154,029	789	0.5

It is not possible, unfortunately, to identify precisely trade volumes for round pulpwood, as this assortment is included together with logs by the Harmonised System in "wood in the rough". It is however possible to glean some information from the table 7.3.5 "Exports and imports of industrial wood in the rough"(found in the chapter 7 on roundwood). First, Europe's leading importers of round pulpwood, Finland and Sweden both increased these imports significantly. Imports of wood in the rough increased by no less than 37% for Finland, to 9.2 million m^3, and by about 20% for Sweden, to nearly the same level. Finnish wood raw material imports were at record levels and the subject of some political discussion. Almost all these volumes concern pulpwood, largely from the Baltic countries and Russia. Russian exports of wood in the rough also expanded by 10.4% to reach 19.7 million m³, although part were sawlogs, notably to Japan. As Russian log exports to Japan fell by 1.4 million m³, most of the increase was pulpwood.

The Baltic Countries reported the following increases in exports of wood in the rough, (coniferous and non-coniferous): Estonia, +0.88 million m³ (+30%) and Latvia, +0.64 million m³ (+30%). The increase in Lithuania was marginal. Altogether in 1998, the three Baltic Countries exported 7.3 million m³ of wood in the rough, mostly pulpwood, 27% more than in 1997.

Finnish and Swedish imports of wood in the rough amounted to 18.4 million m³ in 1998. This concerned essentially pulpwood, and was equivalent to just over 20% of derived pulpwood requirements. Thus about a fifth of pulp production in Finland and Sweden is based on imported roundwood. (Another 1 million m³ of pulpwood supply concerns imported residues and chips)

Trade in wood residues, chips and particles is particularly hard to monitor because of the scattered sources of the material, classification difficulties, etc. Further complicating the analysis is the many local factors which play a role. Recent years have seen additional factors to the normal ones of price, location, and quality, as determinants for trade in wood residues. Landfill charges have in many cases made simple dumping or burning of residues expensive, or forbidden, and disposal by burning is sometimes not allowed because of contamination. Improved collection systems have improved supply of residues from secondary wood processing industries.

In 1998, German exports of wood residues, chips and particles dropped by nearly a quarter, to 2.7 million m³, after the sharp increase in 1997, to 3.5 million m³ (table 11.3.4). This level is still well above the 1.9 million m³ reported in 1995. Steep upward movements between 1997 and 1998 were recorded for exports by France, Switzerland and Sweden, and imports by Italy, Finland, Germany and Norway, while marked downward movement was recorded for exports by the Czech Republic, France and Austria.

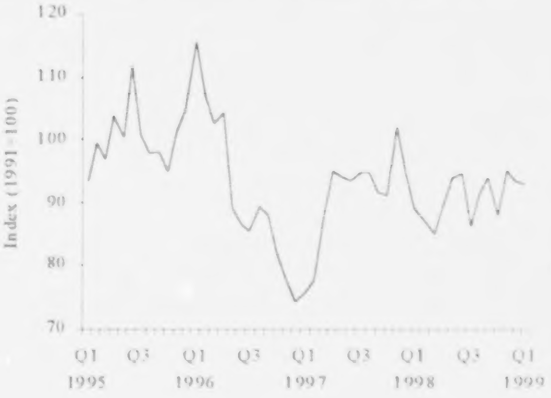
North American exports, mostly of chips, dropped by 8% to 7.3 million m³. Japan is still the most important destination, as it imported 13.7 million m.t. in 1998, 1.1% less than in 1997. However, the pattern of imports changed: Japanese chip imports from the United States fell by 10.1%, or 0.5 million m.t., while imports from other sources hardly fell at all, or rose. This may be attributed to the strength of the dollar over this period. Canadian exports of wood residues, chips and particles, to all destinations, including the United States, fell by nearly 30%, to just over 1.2 million m³.

Prices on European pulpwood markets varied, but in early 1999 were generally stable, with some weak tendencies:

- In Germany prices for *industrieholz* (essentially round pulpwood, with some "other industrial wood") were on average 10% higher in 1998 than in 1997, with further rises in early 1999 (graph 11.3.1). However, no clear trend is visible. Prices for residues have been rising steadily but slowly since the end of 1996, and stood in May 1999 at 103.4 (index 1995 = 100) compared to just over 90 in late 1996;

GRAPH 11.3.1

Pulpwood prices in Germany, 1995 to 1999



Source: "Forest Products Prices, 1996-1998", *Timber Bulletin*, UN-ECE/FAO, 1999.

- In Finland, pulpwood prices in May 1999 were between 1.6% and 3.7% lower than in May 1998. This slow downward trend has been visible since spring 1998 (graph 11.3.2);
- Estonia and Latvia also reported lower prices and volumes;
- In Austria, there was a sharp upward price movement in the last quarter of 1998, after nearly two years with very little variation (graph 11.3.3);
- In Sweden, there was practically no change in prices for round pulpwood in 1997 or 1998, while prices for sawmill chips tended to decline.

These developments were in line with trends for European pulp markets: some rise in volumes, but uncertainty about price trends and the supply/demand balance in general. Local and regional pulpwood markets are more difficult to analyze than those for

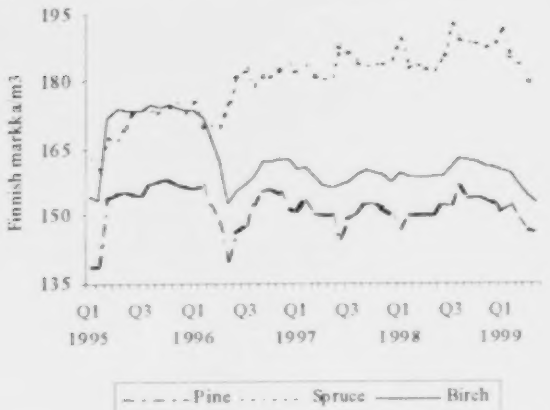
TABLE 11.3.4

Exports and imports of wood residues, chips and particles, 1995 to 1998

	1995	*1996*	*1997*	*1998 (prelim.)*	*Change 1997 to 1998*	
					Volume	*Per cent*
			(1000 m^3)			
EXPORTS						
EUROPE of which :	7,848	8,778	7,826	6,997	-829	-10.6
Germany	1,878	2,987	3,522	2,690	-832	-23.6
France	1,161	1,211	1,156	1,251	95	8.2
Austria	2,120	1,707	557	545	-12	-2.2
Belgium-Luxembourg	635	465	407	...	...	...
Czech Republic	492	552	479	339	-140	-29.2
Switzerland	171	182	226	301	75	33.2
Sweden	271	311	251	288	37	14.7
Netherlands	321	280	222	...	...	...
Norway	147	146	191	181	-10	-5.1
Finland	94	170	161	172	11	6.8
Other countries	558	768	655	601	-53	-8.1
Russian Federation	533.0	...	...	...	...	...
Canada	1,488	1,717	1,707	1,211	-496	-29.1
United States	5,552	7,237	6,212	6,069	-143	-2.3
North America	7,040	8,954	7,919	7,280	-639	-8.1
IMPORTS						
EUROPE of which :	10,204	10,485	10,872	11,358	486	4.5
Belgium-Luxembourg	1,195	1,117	1,866	...	...	...
Italy	1,235	1,155	1,499	1,703	204	13.6
France	1,552	1,114	1,278	1,217	-61	-4.8
Finland	582	740	943	1,079	136	14.4
Germany	453	720	873	1,001	128	14.7
Sweden	686	777	921	936	15	1.6
Norway	520	664	636	857	221	34.7
Austria	2,470	2,583	839	662	-177	-21.1
Switzerland	608	603	529	543	14	2.6
Hungary	121	199	450	...	...	...
Other countries	781	812	1,039	1,044	6	0.5
Canada	1,344	933	1,611	1,729	117	7.3
United States	1,227	1,583	1,464	1,022	-442	-30.2
North America	2,571	2,516	3,075	2,751	-325	-10.6

GRAPH 11.3.2

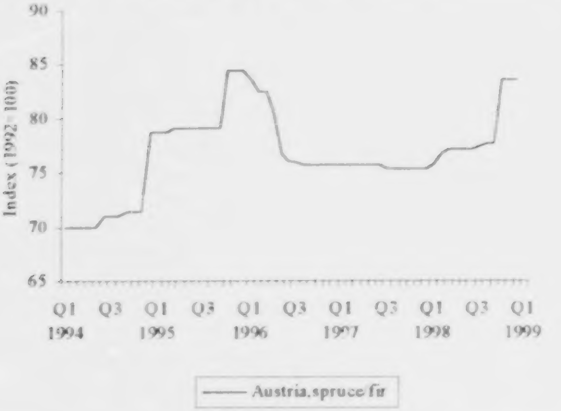
Pulpwood prices in Finland, 1995 to 1999



Source: Finnish Forest Research Institute

GRAPH 11.3.3

Pulpwood prices in Austria



Source: "Forest Products Prices, 1996-1998", *Timber Bulletin*, UN-ECE/FAO, 1999.

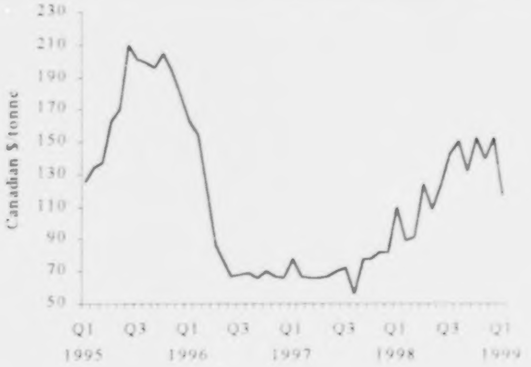
globally traded commodities such as pulp. In general finding pulpwood sellers and making contracts is a fairly lengthy business (often characterized by one strong buyer and many, small, often not well informed, sellers). For this reason, there are often regional agreements or recommendations which are valid for some time, so that pulpwood prices may move more slowly, up or down, than those for pulp.

In North America however, the down time and closures in the pulp industry, decided on by producers to restore the supply/demand balance on the pulp markets, combined with good logging conditions, and high levels of sawnwood production (producing chips as a by-product) have caused a pulpwood glut (oversupply) in many areas, including such important areas as the United States South and north-east. According to *International Woodfiber Report*, in many regions of the United States and Canada, round pulpwood prices were about 20% lower in the second quarter of 1999 than in the same period of 1998, and sometimes barely over $20/green ton, delivered to mill.

The export unit value of British Columbia chips (in Canadian dollars), rose steadily between mid 1997 and the end of 1998 (graph 11.3.4).

GRAPH 11.3.4

Export unit price of chips from British Columbia, 1995 to 1999



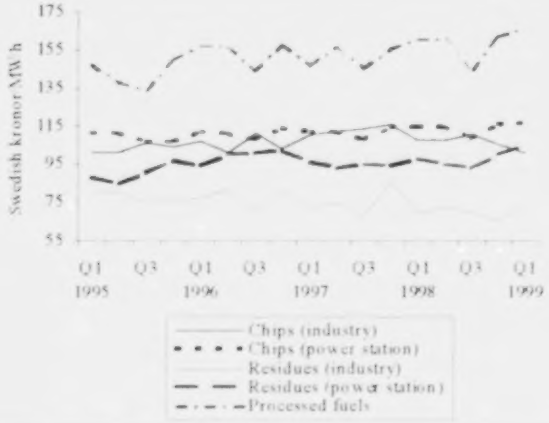
Source: Ministry of Forest, British Columbia, 1999.

Little up-to-date information is available on wood energy markets, as few countries have set up systems to monitor prices and volumes of energy wood. Although wood energy has attracted the attention of policy makers, the market is small and fragmented. An exception is Sweden, where prices remained stable through 1998 (graph 11.3.5).

The proceedings of the workshop held in Istanbul, Turkey in November 1998 on recycling, energy and market interactions, have recently been issued by the Turkish Ministry of Forestry. They contain several interesting and relevant papers on the situation and prospects for wood energy in a number of countries, although not, as yet, the type of recent and quantified data needed for publications such as the *Review*.

GRAPH 11.3.5

Swedish prices for wood energy



Source: NUTEK, 1999

CHAPTER 12

CERTIFIED FOREST PRODUCTS

Highlights

- Demand for certified forest products (CFPs) in 1999 remains small and mainly from retailers.
- The majority of the world-wide demand for CFPs comes from within the ECE region, mainly from Europe and principally from net importing countries.
- Potential supply of CFPs has increased dramatically due to new forests being certified.
- Producers of CFPs seek advantages other than profit.
- The Pan European Forest Certification system was established in mid 1999.

12.1 Introduction

This is the first time that certified forest products are analyzed in a regular chapter in the *Review*. The Timber Committee follows the *market developments* for CFPs, hence the emphasis within this chapter at the expense of descriptions of certification systems. Delegations at the September 1999 Timber Committee Session will expound upon CFP markets in their countries; however this chapter, as in previous chapters, takes a regional approach contrasting North America and Europe. Several recently-released studies are cited below. The secretariat greatly appreciates their authors' contributions to this analysis.

12.2 What are CFPs?

Certified forest products bear labels demonstrating in a verifiable manner that they come from forests which meet standards for sustainable management. Consumers might find labels on furniture and wood products while manufacturers could verify the source of certified products from a system of chain of custody which precisely identifies the origin of the wood.

12.3 What volume or value of CFPs are traded?

The volume and value of CFPs traded are at present unknown. The FAO/ECE Working Party on Forest Economics and Statistics at its May 1999 session discussed the need for statistics on this vocal market sector. However delegates noted that in the absence of separate customs classifications for CFPs, there will never be standardised official reporting. Hence they concluded that the best way to monitor markets for CFPs would be through country reports prepared for the annual Timber Committee market discussions.

12.4 Where is the demand for CFPs?

Demand for CFPs, especially within Europe, is coming from retail buyers groups, and not from final consumers (table 12.4.1). There is even less demand for CFPs outside the ECE region. Some retailers responding to pressure to prove that wood products are sustainably produced have banded together, usually with assistance from the WWF, to form a unified demand for more certified products.

(i) Demand in the Netherlands

In 1998, 15,000 to 20,000 m^3 roundwood equivalent of Forest Stewardship Council (FSC)-certified wood was sold in the Netherlands, i.e. 0.2% of the Dutch wood market according to projections from a sample done by the Institute for Forestry and Forest Products (SBH) for the European Forest Institute (EFI). Most of the wood came from Brazil with some smaller amounts coming from Poland and the Netherlands. In addition, approximately 20,000 m^3 roundwood equivalent of Malaysian wood was certified by the Dutch Keurhout system.

TABLE 12.4.1

Status of buyers groups in Europe's largest importing countries, 1999

	Group name	*Founded*	*Number of companies*
Austria	Gruppe 98	1996	26
Belgium	Club 1997	1994	81
Germany	Gruppe 98	1997	31
Netherlands	Hart Voor Hout	1995	11
Netherlands	(FSC-linked)	1992	473
Spain	WWF Grupo 2000	1998	...
United Kingdom	1995+ Group	1991	89

Sources: "European Markets for Certified Wood Products" by Mr. Keith Forsyth, 1999.

The number of retailers in the Netherlands who are ready to sell wood certified by the Dutch Keurhout scheme has increased to 260 (*Tropical Timbers, 1999).* The Keurhout programme, established by the government and the industry, puts a hallmark on wood coming from approved certification schemes such as the FSC. Some 140 companies in the timber trade and wood processing industries are members of Keurhout. The Keurhout systems carries a "declaration" but is not a certification system.

SBH concluded that the amount of certified wood and wood products is still very small in the Netherlands. However, market is growing all the time (demand exists and supply is developing). Due to PEFC development the amount of certified wood will increase rapidly in the near future.

The countries above import wood and wood products from well over 100 countries and given the volume of imports, environmental non-governmental organisations intend to influence world-wide forestry practices through certification (Forsyth, 1999).

One estimate is that "in mid 1999 only about an estimated 600,000 m^3 of certified timber are actually available in the European markets" (*Policy Analysis of Certification of Forest Management*, unpublished study by Dr. Ewald Rametsteiner, 1999). The same study notes that based on the amount of certified forest land in Europe, the *potential* production of certified roundwood was 20 million m^3 per year in 1998.

(ii) Demand elsewhere in Europe

Buyers groups are under development in other ECE region countries and in other regions of the world. A new Club ProForêt has been established by the WWF which groups seven Swedish and French companies who favour FSC-certified products (*Commerce International du Bois*, 1999).

The potential demand in Europe for CFPs is perhaps greatest in the United Kingdom as indicated by the highest awareness of the term "sustainable forest management" in the United Kingdom, slightly over 50% of people surveyed, versus 25% in Austria, 18% in Germany and about 8% in France and Italy (*EU Consumers and SFM Certification* by Dr. Ewald Rametsteiner, 1998). One Swedish company, AssiDomän, recognises this and expected to sell 100,000 m^3 of certified wood into primarily the United Kingdom home improvement market in 1998, and they forecast greater volumes in 1999. Most of the products are furniture grade pine (redwood), joinery and other pine sawnwood.

Surveys of wood products customers found that 60% would "be interested in receiving information as...provided by the certificate" and "the majority of the forest industry and trade sector, about 65%, seems to think that a Sustainable Forest Management (SFM)-certification system is needed" (Rametsteiner, 1999). The study continues saying that surveys of forest owners have found reluctance to certify as they see "little improvement possibilities through this instrument, neither in ecological nor in economic terms."

In addition to buyers' groups, some public entities have banned tropical wood and have developed written preferences for certified forest products. These measures by public, although not national, bodies have been criticised internationally as non-tariff barriers to trade.

12.5 What is the supply of CFPs?

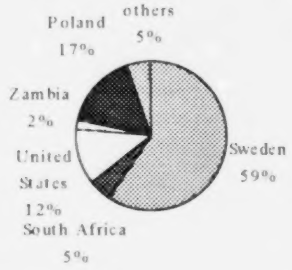
As there are no statistics at present on the volume or value of the supply of CFPs, the one approach is to look at the area of certified forests. As of June 1999 15.8 million hectares had been certified, according to the FSC system; 83% in temperate and boreal forests, mostly in Sweden, the United States and Poland, and 17% in tropical forests, mostly in Zambia (FSC, 1999 and "Overview of global trends in FSC certificates" by International Instituted for Environment and Development, 1999). In the United States, roughly 22 million hectares have been certified under the

Sustainable Forestry Initiative (SFI) system plus 1.5 million under the FSC system.

Studies have attempted to calculate potential supply based on hectares certified. However the example of The Collins Pine Company indicates that this approach is misleading. In the last *Review's* special chapter on the "Certified forest products marketplace", Collins Pine, a family-owned and -operated business in California was mentioned as the first company to have forest land certified under the FSC system in the United States. Apparently approximately 50% of Collins Pine's production in certified, but less than 5% is actually labelled and sold as CFPs because of a lack of market demand.

GRAPH 12.5.1

Estimated potential production of FSC-certified roundwood, 1999



Source: "European Markets for Certified Wood Products" by Mr. Keith Forsyth, 1999.

The fear of additional costs in what are already difficult market conditions is the main restriction on escalation of the supply of CFPs. Based on the "Forestry Wood Chain Survey" in Finland, United Kingdom and Germany, the majority of companies think that the price premium for roundwood supply will be less than 5%, if any (Rametsteiner, 1999). The majority of sawmillers (66%) thought they would have to absorb additional material costs, whereas pulp and paper producers and buyers felt that they could pass on additional costs to consumers. These opinions correlate with the share of raw material cost in the final product price: 60% in the sawmill industry versus 30% in the pulp and paper industry. Rametsteiner extrapolates these costs to mean that a sawmiller would have to charge 3% more for sawnwood, difficult in competitive markets, while the paper industry would have to raise prices by 0.5%.

12.6 What are the potential structural effects in European forest products markets?

Where will CFP obtain market share? Either CFPs will displace current wood products used in traditional markets, or they will take back markets lost to nonwood substitutes, or they will create new markets for wood products. At the present there is little evidence on which to document structural changes occurring as CFPs enter the marketplace. The study "Policy analysis of certification of forest management"[1], found the production and trade of certified forest products could have the following substitution effects in Europe:

- no substitution for non-wood materials;
- no substitution for tropical timber;
- small substitution of tropical timber through regaining market share for non-wood substitutes;
- small substitution of certified for non-certified products;
- eastern European producers penetrating niche markets for CFPs in western Europe.

12.7 Why certify?

While beyond the scope of this *Review* to judge the merits of certification of sustainable forest management, a general observation is that the forest and forest products sector in the ECE region is gradually accepting that certification may be advantageous to preserving market share for wood and wood products against competitors (and uncertified) products like PVC plastic, aluminium and steel.

The Union pour le Commerce de Bois Durs (UCBD) in Europe, an alliance of the national federations of tropical and temperate hardwood importers in 13 of the 15 European Union member countries, issued a statement in June 1999 which supports certification when based on the following principals:

- voluntary participation;
- transparency;
- credibility;
- unrestricted trade;
- free competition;
- independent verification;

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[1] Rametsteiner, Ewald. "Policy analysis of certification of forest management as a policy instrument to promote multifunctional sustainable forest management", Final report of Task IV, SFM-Certification Impact Assessment and the Role of Governments in SFM-Certification, an EU FAIR project, 1999.

- international recognition;
- simple chain-of-custody.

These principles have been more or less echoed by many other groups and were in part responsible for the new Pan European Forest Certification (PEFC) system. A clear, unified message coming from the PEFC, the UCBD, the Centre Technique du Bois et l'Ameublement (CTBA), Fédération française des importateurs de bois du Nord (FFIBN), Fédération française des bois tropicaux et américains (FFBTA), and many other groups, which has been repeated many times by the Timber Committee, is that *wood must be promoted as an environmentally friendly and renewable natural resource*.

12.8 Why produce and sell CFPs?

The preceding sections paint a rather negative picture for CFPs, yet it is the intent of the *Review* to present a balanced and objective viewpoint. Since some manufacturers are producing and selling CFPs, there are other reasons than sheer economics.

It bears repeating, from a *Geneva Timber and Forest Discussion Paper*[2] on ECE region by Drs. Eric Hansen and Heikki Juslin, *The Status of Forest Certification in the ECE Region*, a passage about other reasons than profit for marketing CFPs:

- Access to new niche markets;
- Promotion of a company's "environmental" image and policy;
- Credibility in communication with customers;
- Building strategic marketing networks.

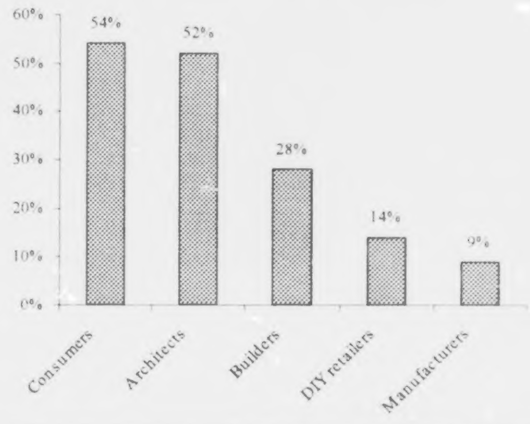
Currently price premiums do not cover the extra cost of producing CFPs, although some manufacturers are hoping with market development CFPs will command higher prices to balance the added expenses. In the United States 54% of consumers either "somewhat agreed" or "strongly agreed" with the statement "I would pay a premium for certified wood products or raw materials" (graph 12.8.1) ("Environmental certification of wood products: the United States manufacturers perspective" by Richard Vlosky and Lucie K. Ozanne, 1998). United States consumers' willingness to incur a premium for certified wood products varies depending on the value of the product: consumers are willing to pay a relatively high premium for an inexpensive item as compared to a house. An average of 37% of consumer respondents was not willing to incur a premium for any type of environmentally certified consumer wood product.

Wood products manufacturers in the United States believe that their companies currently have policies in place aimed at environmental stewardship and that there is little need for certification of temperate forests or tropical forests (Vlosky and Ozanne, 1998). Few manufacturers are willing to incur additional costs of certification unless costs are offset by increased prices charged to customers. In addition, a majority of companies are not willing to incur costs for chain-of-custody procedures.

The study also questioned other groups as shown.(graph 12.8.1)

GRAPH 12.8.1

Acceptance of premium for CFPs, 1998



Source: "Environmental Certification of Wood Products: The United States Manufacturers' Perspective" by Dr. Richard Vlosky and Ms. Lucie K. Ozanne, 1998.

Do It Yourself (DIY) home centers, architects and home builders in the United States do not believe customers would pay a premium for certified products. Home center retailers felt most strongly that their customers would not pay such a premium. This finding is important because for certification to succeed, there must be financial incentives for participants at all levels in the value-chain (Vlosky and Ozanne 1997).

When viewing *intention* to pay premiums it must be noted that actual buyer behaviour does not always correspond to the stated intention and is naturally influenced by such factors as price and quality. Nevertheless, some potential for price premiums exists in specific market niches.

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[2] ECE/TIM/DP/14, 1999.

12.9 What is new in certification systems?

In the United States, the Sustainable Forestry Initiative created by the American Forest and Paper Association has been aimed at industrial forest lands, but now has joined with the Tree Farm System to reach more non-industrial private forestlands. In Europe the FSC by the WWF was dominant through mid 1999.

Canada has initiated a Sustainable Forest Management System through the Canadian Standards Association based on the ISO 14,001 environmental management standards. It has expectations of 5 million hectares certified in 1999. Based on a survey of 31 Canadian enterprises, approximately 70 million hectares will be certified by the end of 2003, mainly by the Canadian sustainable forest management standard. The Canadian Coalition for Certification of Sustainable Forest Management estimates that one-tenth of the lands will also be certified by FSC.

As predicted in the "Status of forest certification in the ECE region", a major development has been the establishment of the PEFC scheme. Because of the recent appearance of the PEFC and its potential for greatly increasing the supply of CFPs on the European markets, portions of a press release from its inauguration on 30 June 1999 are reproduced below. In addition, the PEFC is based on the six pan-European criteria for monitoring and measuring sustainable forest management which were developed through the Second Ministerial Conference for the Protection of Forests in Europe in Helsinki in 1993, and which were elaborated into Operational Level Guidelines at the Third Conference in Lisbon in 1998. The Timber Committee and the FAO European Forestry Commission give the highest priority to supporting achievement of SFM in the region, and notably support for the Pan-European Process for the Protection of Forests in Europe.

The Pan European Forest Certification program (PEFC)

The PEFC was officially launched in June 1999 as a framework for the mutual recognition of compatible national forest certification programs. The PEFC is a voluntary private sector initiative to provide assurance to customers that the wood products they buy come from forests managed according to the Pan-European Criteria for the sustainable management of forests in Europe, as defined by the resolutions of the Helsinki and Lisbon Ministerial Conferences of 1993 and 1998 on the Protection of Forests in Europe.

PEFC aims to facilitate customers' identification of products from sustainably managed forests through a certification process subject to independent third party auditing. Products will carry a logo to facilitate the international trade of certified products.

Participating countries or regions will be able to develop their own national certification systems, whilst at the same time adhering to the Pan European Criteria for sustainable forest management.

So far organisations from 17 European countries are participating in the scheme (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Latvia, Luxembourg, Norway, Portugal, Slovenia, Spain, Sweden and Switzerland and the United Kingdom) while interest has been expressed by timber producers from Australia, Canada, the United States and Brazil. Current estimates indicate that over 10 million hectares may be certified and will have the right to bear the PEFC logo by early 2000. In Europe, the forest area under non-industrial private ownership covers more than 100 million hectares, with an output of approximately 280 million cubic meters per year.

The PEFC Council is also expected to work towards the mutual recognition of compatible non-PEFC forest certification systems.

So far, the Pan European Forest Certification program has the support of associations representing about 12 million woodland owners in Europe. PEFC has also rallied the support of forest industry and trade organisations in Europe. Retailers, environmental and social interests have also been invited to participate both at the national and the European level. At national level, all interested parties have been invited to take part in national PEFC governing bodies, which set national standards and devise the national forest certification systems.

These national bodies are represented on the PEFC Council and elect its Board members. So as to encourage social, retailer and environmental interests to become more involved in the further development of PEFC, places on the Board have been reserved for them.

Source: PEFC, 1999.

Also of importance is the establishment for a number of national systems, some of which will be allied to the PEFC. It is beyond the scope of this market report to further detail the various certification systems. If possible the above-mentioned *Discussion Paper* will be periodically updated on the Timber Committee's website.

12.10 Conclusion

While the chapter attempted to give an update on the market situation in the ECE region, the available statistics do not yet support the hype this market sector receives. Certainly the niche market for certified forest products is growing fast and *potential* supply in Europe will get a boost from the PEFC system. However for analysts, the non-differentiation of CFPs in customs classifications will always prevent comprehensive and objective analysis of this new market sector.

CHAPTER 13

TROPICAL TIMBER DEVELOPMENTS[1]

Highlights

- Tropical timber markets continued to fall sharply during the first half of 1998, but appeared to reach the bottom in the later half of the year.
- Recovery in some tropical timber markets was occuring in early and mid 1999.
- ECE exporters were severely impacted by the downturn in Asian markets in 1998; however, demand was increasing in Japan and Korea in early and mid 1999.
- Production and trade of secondary tropical forest products withstood the economic crisis better than primary products and in some cases were positively influenced by producers' currency devaluations.
- Tropical timber prices fell sharply in 1998, but partly recovered in early 1999.
- Currency devaluations of many Asian currencies had direct effects on ECE region forest products trade.

Secretariat introduction. The secretariat would like to thank the principal authors of this chapter, Dr. Steve Johnson, Statistician and Dr. Michael Adams, Marketing Service Information Coordinator, both of the International Tropical Timber Organization (ITTO). Most of the following information came from the ITTO *Annual Review and Assessment of the World Timber Situation 1998*. Note that the ITTO statistics in the following chapter may differ from FAO statistics as ITTO members represent most, but not all, of the tropical timber production and trade.

13.1 Introduction

The major factor affecting tropical timber production and trade in 1998 and 1999 was the economic crisis which started in Asia in 1997 and spread to other regions. The information presented below shows the extent of the effects of the downturn on many tropical producing and consuming countries over the past two years.

Although few figures are available yet for 1999, it appears that most economies are improving with a positive impact of the timber sector. However uncertainties remain regarding the extent of an overall recovery in the tropical timber sector due to continued weakness in two major economies in the sector, ie Japan and Indonesia.

13.2 Production

(i) Logs

In 1998, log production by ITTO producer member countries fell over 6% to 123.3 million m^3. The production of tropical saw and veneer logs in ITTO producer member countries totaled 131.4 million m^3 in 1996. This total was down 2% from 1995 levels, with production remaining at 131.4 million m^3 in 1997, 82% of production of all saw and veneer logs in all tropical countries and 14% of global saw and veneer log production. Graph 13.2.1 shows ITTO's five major log producers for 1996-1998, ranked by 1997 production, as well as aggregate production by all other members.

Of the top five, only India was stable during the period 1996-1998, whereas the rest (especially Indonesia) continued decreasing. Malaysia reported a rise of almost 1.1 million m^3 in log production between

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[1] By Dr. Steve Johnson, Statistician, Economic Information and Market Intelligence, ITTO, International Organizations Center, 5th Floor, Pacifico-Yokohama, 1-1-1, Minato-Mirai, Nishi-Ku, Yokohama, 220-0012 Japan, Tel: +81 45 223 1110, Fax +81 45 223 1111, e-mail: itto@mail.itto-unet.ocn.ne.jp

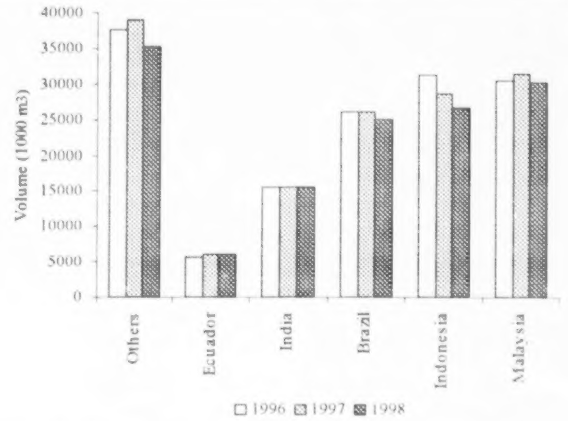
Dr. Michael Adams, Marketing Service Information Coordinator, same address.

1996 and 1997, from 30.3 million m^3 to almost 31.4 million m^3. However, Malaysian production has fallen from about 37.3 million m^3 in 1994 to 30.2 million m^3 in 1998, a reduction of almost one-fifth in just five years. This decrease reflects lower harvests in both Sabah and Sarawak, with the latter's harvests from its permanent forest estate now at the annual level of 9 million m^3 recommended by the ITTO Mission to Sarawak in 1990. In all regions harvests fell in 1998 due to decreased demand associated with recession in many domestic and export markets (table 13.2.1).

Four countries (Malaysia, Indonesia, Brazil and India) dominate tropical log production and together comprised almost 80% of ITTO production in 1997-1998 (graph 13.2.1). All figures are based on total estimated removals, including those from forest conversion operations. Indonesian reports indicate that in recent years, the government has converted 3.4 million hectares of forests into plantations, 2.4 million of which are palm oil estates. Most of the cleared forests were classed as "secondary degraded" and did not contribute significantly to Indonesian log production. Ecuador remains the fifth largest ITTO log producer and was the only major producer that has increased tropical log production since 1996.

GRAPH 13.2.1

Major tropical log producers, 1996 to 1998



Source: ITTO, 1999.

Eight other ITTO producer members had log production exceeding 1 million m^3 in 1997. All of these (Papua New Guinea, Cameroon, Myanmar, Côte d'Ivoire, Colombia, Gabon, Peru and Ghana) experienced relatively stable or declining log production in 1998. Log production has decreased dramatically between 1997 and 1998 in Cambodia (47%), Gabon (47%) and PNG (43%) due to the economic turmoil in markets served by these countries. Log production has also fallen by 44% since 1994 in Ghana, where strict harvest controls and a log export ban have been in place for the past four years. The

TABLE 13.2.1

Tropical forest products production, 1996 to 1998

(1000 m^3)

		1996	1997	1998
AFRICA				
	logs	9903	11102	9416
	sawnwood	2021	2097	2200
	veneer	441	422	486
	plywood	243	276	308
ASIA PACIFIC				
	logs	85058	83371	78106
	sawnwood	21901	21317	20250
	veneer	1432	1525	1256
	plywood	14329	11404	10957
LATIN AMERICAN/CARIBBEAN				
	logs	36439	36952	35781
	sawnwood	14401	14588	13979
	veneer	580	595	570
	plywood	1954	1931	1816
TOTAL				
	logs	131400	131425	123303
	sawnwood	38323	38002	36429
	veneer	2453	2542	2312
	plywood	16526	13611	13081

Source: ITTO, 1999.

Philippines has experienced rapidly falling production since logging was banned in virgin forests in 1993; production dropped by almost half since 1994, to just over 400,000 m^3 in 1998. The only main producers that increased log production over the last five years were Ecuador (41%), Myanmar (22%) and Peru (11%).

The Asia-Pacific region produced about 63% of ITTO members' tropical hardwood logs in 1997 and 1998. Africa's share of production remained at about 8% in 1997-1998, with Latin American production growing from 28% to 29%. Growth in the Latin American and African share of total ITTO production will likely continue to the turn of the century and beyond, as few of ITTO's Asian members have the potential to substantially increase log production sustainably. The proportion of log production utilized domestically (i.e. production minus exports) rose slightly in Asia, from 88% to 90% in 1997-1998. In Latin America almost 100% of log production is processed domestically. Domestic log consumption in Africa fell from 58% to 52% of production in 1997 as log exports boomed, but rose back to 63% in 1998. The general trend towards an increasing proportion of log production being processed domestically will accelerate and affect all regions in the next few years and tropical log supplies will tighten as increased processing capacity comes on line in producing countries. While there will be short-term reversals when log exports will surge due to economic conditions, rapid population growth in Africa (which will rise from 12% to almost 25% of the world total over the next 150 years according to the World Bank), and economic growth in Asia and Latin America, will ultimately contribute to pushing long-term domestic log processing upwards in producing countries.

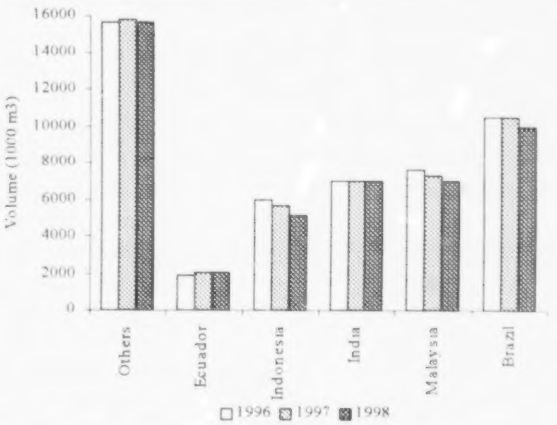
(ii) Sawnwood

Production of tropical sawnwood in ITTO producing countries totaled 36 million m^3 in 1998, down 4% from the 38 million m^3 in 1997. This represents 80% of sawnwood produced by all tropical countries and 10% of global sawnwood production. Africa's production grew by almost 10% from 1996-1998, but still only accounted for about 6% of the ITTO total. The region continues to suffer from weak infrastructure and heavier reliance on environmentally demanding export markets (relative to other regions) that constrain major investments in wood processing. Although Latin America increased its production by 1% in 1997, it dropped by 4% in 1998 (accounting for 37% of the ITTO total), reversing the upward trend experienced throughout the 1990s. Asian production fell by 5% in 1998, when it accounted for 56% of the ITTO total, reflecting declining economies, decreases in log production, and an increased focus on value-added processing in the region.

Graph 13.2.2 shows the major producers of tropical sawnwood in the 1996-1998 period, ranked by 1997 production. Brazil (10.5 million m^3) replaced India (7 million m^3) as the major producer of tropical sawnwood following a revision of sawnwood production estimates. These two countries produce almost half of ITTO's tropical sawnwood but consume most of this domestically. Malaysia is ITTO's second largest tropical sawnwood producer, but production fell by 4% to about 7.3 million m^3 in 1997 and by another 4% to just below 7 million m^3 in 1998 as log production fell and available logs were increasingly diverted to veneer and plywood mills.

GRAPH 13.2.2

Major tropical sawnwood producers, 1996 to 1998



Source: ITTO, 1999.

Seven other countries (Ecuador, Colombia, Peru, Côte d'Ivoire, Cameroon, Ghana, Japan and China) produced over 500,000 m^3 of tropical sawnwood in 1997. Production increased or remained stable in 1998 in all of these countries except Côte d'Ivoire and Japan. Although stable in 1997 at about 310,000 m^3, Thailand's tropical sawnwood production fell dramatically to virtually zero in 1998. Thai sawnwood production plunged due to the country's economic problems in 1997-1998, but should start to recover with the economy in 1999.

ITTO consuming countries, such as Japan, produced 1.85 million m^3 of tropical sawnwood in 1997, up 2% from 1996 levels. Production decreases due to economic slowdowns in Japan and the Republic of Korea accounted for most of a 5% drop in 1998, to 1.76 million m^3 (a 34% drop over the last five years). EU countries (mainly France and Portugal) increased tropical sawnwood production by over 5% in 1998 to almost 500,000 m^3, but this was still about one-third less than production levels in the early 1990's.

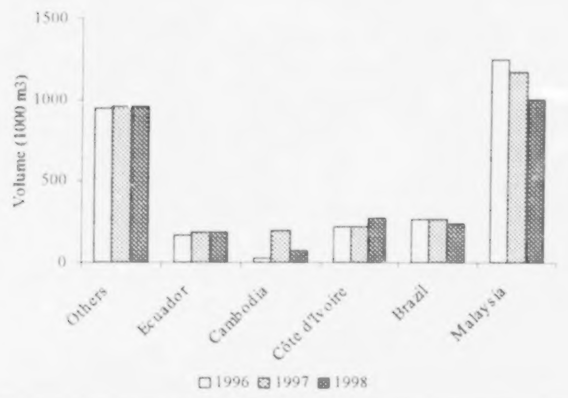
(iii) Veneer

Production of veneer in ITTO producing countries fell in 1998, by 9%, to 2.3 million m^3 from just over 2.5 million m^3 in 1997. ITTO production accounts for 91% of total veneer produced by all tropical countries, and 39% of global veneer production. The 1998 decrease was due largely to a drop in Malaysia's veneer production, which fell from 1.2 to 1.0 million m^3 between 1996 and 1998.

Production rose in Africa but fell in Asia and Latin America in 1998. The Asian region produced over 1.5 million m^3 of tropical veneer in 1997, Latin America produced 595,000 m^3 and Africa produced 422,000 m^3. The main ITTO veneer producers in 1996-1998 are shown in graph 13.2.3. Malaysia's dominant (but declining) role is clear from this chart.

GRAPH 13.2.3

Major tropical veneer producers, 1996 to 1998



Source: ITTO, 1999.

Côte d'Ivoire reported veneer production increases that made it the second largest ITTO producer in 1998. Cambodia's tropical veneer production climbed six-fold in 1997, making this country ITTO's fourth largest veneer producer, with Ecuador following. Cambodia's jump in veneer production was not explained, but the figure for 1997 is supported by trade figures from importers, mainly China.

Japan's production of tropical veneer continued falling in 1997-1998 (down 45% over the last five years) as its tropical veneer and plywood industries are shrinking together with log availability and its economy. With Ecuador's increasing veneer production, Japan has been displaced from the list of the top five ITTO producers. Taiwan Province of China and six ITTO members (the Philippines, Ghana, Venezuela, Italy, Cameroon and the Republic of Congo) had veneer production exceeding 50,000 m^3 in 1997, with Ghana, the Republic of Congo, the Philippines and Italy reporting increased production in 1998.

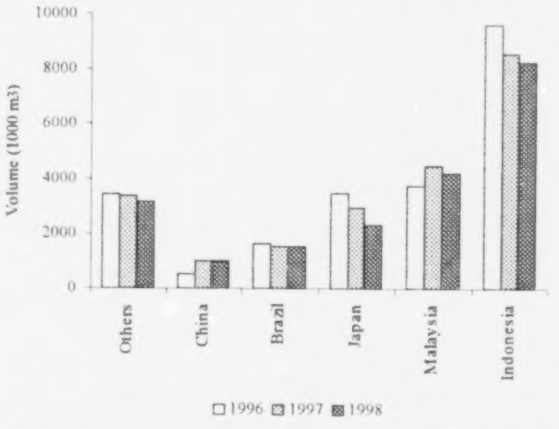
ITTO consuming countries produced about 443,000 m^3 of veneer in 1997, up 5% from 1996 levels before declining 7% in 1998. Production of veneer in consumer countries in 1997 was split between Japan (34%), China and Taiwan Province of China (12% each) and the EU (44%). Japan, China and Taiwan Province of China consume virtually all of the veneer they produce, however, while about 35% of the total produced in Europe is re-exported, mainly to other European countries. The main European producers of tropical veneer are Italy and Portugal.

(iv) Plywood

Plywood production in producing countries decreased almost 10% in 1997 and fell a further 4% in 1998 to 13.5 million m^3. Production of plywood in ITTO producing countries totaled over 14 million m^3 in 1997, about 95% of production by all tropical countries and 26% of global production. Plywood production by Indonesia, the top ITTO producer, dropped 11% from 1996 levels to about 8.5 million m^3 in 1997, falling further to 8.2 million m^3 in 1998. Malaysia's plywood production, in contrast, continued to rise steadily through 1997 to over 4.4 million m^3, a 23% increase from 1994 levels before falling over 5% to 4.2 million m^3 in 1998. The Asian region produced 12.4 million m^3 (over 86% of total producer member production) of plywood in 1997, Latin America produced just over 1.9 million m3 (12%) and Africa produced 276,000 m^3 (2%).

GRAPH 13.2.4

Major tropical plywood producers, 1996 to 1998



Source: ITTO, 1999.

The main ITTO plywood producers in 1996-1998 are shown in graph 13.2.4. Indonesia's dominant but declining role is clear from this chart. Plywood production in Malaysia is growing, while production in Brazil and major consuming countries except for Japan and the Republic of Korea is stable. China (including Taiwan Province of China), the Republic of Korea, the Philippines, India and France all produced over 200,000 m^3 of tropical plywood in 1997, although production in all these countries was stable or declining in 1998. Thailand, formerly a major producer, reported a 20% drop in plywood production in 1997, with a further 50% reduction in 1998, leaving production at 78,000 m^3.

ITTO consuming countries produced 5.7 million m^3 of plywood in 1997 (about 30% of total ITTO production), a slight increase from figures for 1996. ITTO consuming countries' production dropped sharply by 11% to just over 5 million m^3 in 1998. Most of the drop in consumer country production is accounted for by Japan and the Republic of Korea, both of which were in recession. Japan's tropical plywood production has fallen by 42% since 1994. Japanese domestic plywood production has fallen well below plywood imports since 1995, when a 50-year period of domestic production exceeding imports ended. Japanese plywood manufacturers are increasing the proportion of softwoods used in plywood production, as well as investigating lamination and other techniques to allow re-use of concrete form-ply. Several plywood manufactures have established joint ventures for plywood and other panel production in producer countries. These factors, together with a depressed market and a declining supply of logs, mean that Japanese (and most other consuming countries') production of tropical plywood will continue to decline. The downward trend in Korean tropical plywood production is also noteworthy, having fallen by 50% since 1994. Tropical plywood production in the EU, in contrast, rose by 10% in 1998 to 538,000 m^3, with France and Spain the main producers.

Substantial quantities of reconstituted panel products, particularly MDF, are now being produced in several tropical countries, primarily in Asia. Many new plants are currently under construction to meet the expected surge in demand for such products in the Asian region. There were 43 MDF mills and 34 particle board mills operating in tropical Asia as of 1997, with more (usually joint ventures) being announced monthly. Reconstituted panel products will become increasingly important as limits on the growth of plywood production are reached and as more countries move further into downstream processing and attempt to utilize available resources more efficiently. These panels will substitute for plywood and sawnwood in many uses, resulting in decreasing or slower growth in production of these traditional tropical timber products in many countries.

13.3 Exports

The contribution of logs to total tropical timber exports of ITTO producers (in terms of both value and roundwood equivalent volume) has fallen dramatically from over 60% in 1980 to a quarter in 1998 (table 13.3.1). Only Africa continues to export a higher volume equivalent of logs than processed products, with log exports making up 48% of log production and 63% of total roundwood equivalent export volume in 1997. The Asia-Pacific region is rapidly replacing log exports with the export of processed products, spurred by Indonesian plywood exports and Malaysian exports of sawnwood, veneer and plywood, as well as exports of secondary processed wood products by these countries and others such as Thailand. Latin American log exports are a small fraction of both production and total exports. Total roundwood equivalent (rwe) export volume as a percentage of log production decreased from 12% to 10% in Latin America in the period 1996-1998, remained stable in Africa at 71%, and fell in Asia from 54% to 46%. Total ITTO producer member exports (rwe) fell almost 19% from 57.4 million m^3 to 46.4 million m^3 in 1996-1998, due to declining exports of logs, sawnwood and plywood by many countries.

TABLE 13.3.1

Composition of exports by producing regions, 1996-1998

(1000 m^3 roundwood equivalent)

	Log Production			*Log Exports*			*Processed Exports*			*Total Exports*		
Region	*1996*	*1997*	*1998*	*1996*	*1997*	*1998*	*1996*	*1997*	*1998*	*1996*	*1997*	*1998*
Africa	9903	11102	9416	4208	5370	3437	2781	3122	3212	6989	8492	6649
Asia-Pacific	85058	83371	78106	10420	10273	8175	35646	29876	27970	46066	40149	36145
Latin America	36439	36952	35781	35	215	221	4328	4170	3369	4363	4385	3590
Total	131400	131425	123303	14663	15858	11833	42755	37168	34551	57418	53026	46384

Note: totals may not sum exactly due to rounding. Processed exports are sawnwood, veneer and plywood.

Source: ITTO, 1999.

TABLE 13.3.2

Tropical timber export ratios, 1996-1998

	Log exports as a % of production			Log exports as a % of total exports			Processed exports as a % of total exports		
Region	*1996*	*1997*	*1998*	*1996*	*1997*	*1998*	*1996*	*1997*	*1998*
Africa	42	48	37	60	63	52	40	37	48
Asia Pacific	12	12	10	23	26	23	77	74	77
Latin America	0	1	1	1	5	6	99	95	94
Total	11	12	10	26	30	26	74	70	74

Source: ITTO, 1999.

Africa's jump in 1997 exports was due to a surge in log exports from Gabon and Cameroon.

Export ratios give an indication of the dynamics of the tropical timber exports in each region (table 13.3.2). As exports of primary products shrink, in this case logs, then domestic consumption is rising, assuming relatively unchanged production and low imports (or increased domestic stocks, which would be temporary). Processed export growth shows further value-added processing. Of course the ratios are negatively effected by the economic crisis.

The following table is inserted for regular readers of the ECE/FAO *Market Review* who have been following its changes over the past few years (table 13.3.3).

(i) Logs

Log exports by producer members crashed by 25% in 1998 to 11.8 million m^3 due to the economic turmoil in many Asian markets. Total ITTO producer member exports of 15.9 million m^3 in 1997 were worth almost $2.2 billion. This accounted for 90% of the volume (85% of the value) of global exports of non-coniferous tropical industrial roundwood (the only tropical timber product for which global trade estimates are available).

TABLE 13.3.3

Tropical forest products exports, 1996 to 1998

(1000 m^3)

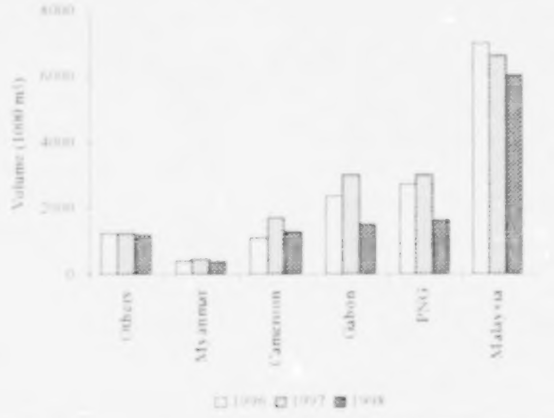
		1996	*1997*	*1998*
AFRICA				
	logs	4,208	5,370	3,437
	sawnwood	1,163	1,262	1,275
	veneer	254	300	318
	plywood	79	111	125
ASIA PACIFIC				
	logs	10,420	10,273	8,175
	sawnwood	4,381	3,600	3,305
	veneer	722	983	716
	plywood	11,435	9,329	8,954
LATIN AMERICAN/CARIBBEAN				
	logs	35	215	221
	sawnwood	1,310	1,308	1,038
	veneer	177	133	83
	plywood	699	668	575
TOTAL				
	logs	14,663	15,858	11,833
	sawnwood	6,853	6,170	5,618
	veneer	1,153	1,416	1,117
	plywood	12,213	10,108	9,654

Source: ITTO, 1999.

Malaysia continues to dominate the trade in tropical logs with almost 6.6 million m^3 exported in 1997, constituting 42% of ITTO producer member exports (graph 13.3.1). Malaysia's log trade in 1997 decreased in volume by 6% from 1996 levels and continued to decrease steadily (to 5.5 million m^3) in 1998. These reductions are due to decreased exports from Sarawak which have brought the state in line with the recommendations of an ITTO Mission, which concluded that a sustainable level of production would be about 9.2 million m^3 per year from its permanent forest estate of 4.5 million hectares. Malaysia's major log customers are all in Asia, with Japan, China (including Taiwan Province of China) and the Republic of Korea accounting for over 74% of the reported log export volume in 1997. Malaysia's log exports were worth almost $908 million in 1996, increasing slightly to $917 million in 1997. The devaluation of the Malaysian ringgit and the decline in tropical log prices in 1998 led to a sharp drop in the dollar value of exports, to less than $500 million.

GRAPH 13.3.1

Major tropical log exporters, 1996 to 1998



Source: ITTO, 1999

Papua New Guinea (PNG) is the second largest tropical log exporter, with 1997 exports of just over 3.0 million m^3 worth $351 million. Exports from PNG decreased almost by half in 1998 as the country was hard hit by the Asian economic crisis. The bulk of PNG's log exports (86% in 1997) go to Japan and the Republic of Korea, with the Philippines accounting for about 7% of PNG's exports in 1997, mainly in lower grades. Official log export statistics for Myanmar (the fifth largest log exporter in 1997 at 423,000 m^3) showed a increase of 3% in 1997, but all exports may not be accounted for by official figures. Myanmar's main trading partners are India, Thailand, Japan and China.

Africa supplies the majority of the remainder of world tropical hardwood log exports. Gabon and Cameroon are the region's largest exporters (and ITTO's third and fourth largest), but Republic of Congo and Côte d'Ivoire also exported substantial quantities of logs in 1997. Gabon and Cameroon experienced major increases (28% and 55%, respectively) in 1997 exports, whereas Côte d'Ivoire's exports fell by over two-thirds in that year as log export restrictions took effect. Cameroon also proposes to limit log exports beginning in 1999, so further reductions in African supplies appear likely. Ghana, a former top exporter, has banned exports of tropical hardwood logs since 1995. The resolution of Liberia's civil war that led to drastic decreases in official production and exports until 1996 has led to a resumption of log exports which doubled from a low base in 1997. African exports go primarily to China, France, Italy and the Philippines, with the Asian importing countries seeking new log supplies in recent years to offset decreases from Malaysia. African exporters were hard hit by the Asian crisis as well, with exports to Korea and Japan falling to almost nil in 1998.

The resumption of Indonesian log exports in 1998 after a 13-year moratorium may also have an impact on African log exports to Asian markets. Malaysia reported imports of over 400,000 m^3 of Indonesian logs in 1997, prior to the decrease in levies under the 1998 International Monetary Fund plan that led to the resumption of exports (probably evidence of log smuggling or tax evasion as no corresponding exports were reported by Indonesia). In late October of 1998, Japan reported its first shipments of meranti logs (about 19,000 m^3) from Indonesia since February 1985. China has also been importing shipments of Indonesian logs regularly since late 1998.

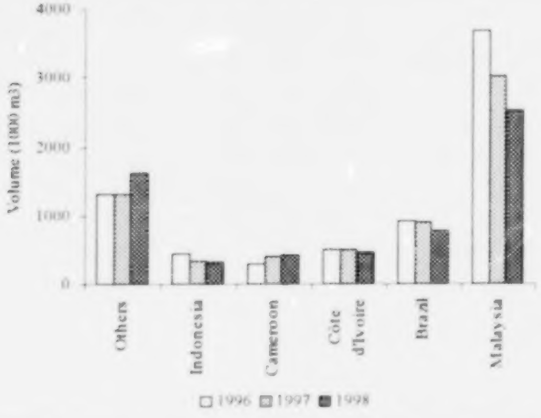
Re-exports of logs by consumer countries were stable at 83,000 m^3 in 1997, 61% of which was accounted for by inter-European trade. France, Belgium/Luxembourg, Germany and the Netherlands were the major log re-exporters in 1997, selling tropical logs mainly to each other. The European tropical log trade, along with total consumer country exports, increased slightly in 1998.

(ii) Sawnwood

Exports of tropical sawnwood continued their four-year slide and reached 6.0 million m^3, a 7.0% fall from 1997 and a 30.2% decline since 1994. Graph 13.3.2 shows the major ITTO tropical sawnwood exporters in 1996-1998, ranked by 1997 export volume. Total ITTO producer exports of almost 6.2 million m^3 (valued at almost $2.2 billion) comprised 76% of all sawnwood exports by tropical countries and 6% of global exports of all sawnwood in 1997. Malaysia continues to dominate the trade in tropical sawnwood, with the 3.0 million m^3 exported in 1997 constituting 49% of total ITTO producing member exports (graph 13.3.2). Malaysia's sawnwood trade fell 18% in 1997 as raw materials continued to be directed to plywood production and other secondary processing. In 1997 Malaysia's sawnwood exports were fairly equally divided between Sarawak (41%), Peninsular Malaysia (30%) and Sabah (29%). Malaysia's major sawnwood customers in 1997 were all in Asia (Thailand, Japan, China, Taiwan Province of China, Republic of Korea and the Philippines). The total value of Malaysia's 1997 sawnwood exports was $1.06 billion.

GRAPH 13.3.2

Major tropical sawnwood exporters, 1996 to 1998



Source: ITTO, 1999.

Malaysia announced in late 1995 that it would stop all sawnwood exports from Peninsular Malaysia by 2000 due to reductions in timber supplies brought about by stricter management standards and the country's commitment to further and more efficient processing of its forest resources. The economic crisis in most of the Asian markets served by Malaysia and consequent drop in demand prompted Malaysia to rethink this policy, however, with export levies on several species lifted in 1998. Malaysian sawnwood exports still dropped by 10% to 2.7 million m^3 in 1998, however, with the United States dollar value of these exports dropping to under $650 million due to the devaluation of the ringgit and price declines.

Indonesian exports of sawnwood decreased 25% to 330,000 m^3 in 1997. Indonesia imposed export levies ranging from $250/m^3 to $2400/m^3 on all sawnwood exports from 1994 to 1998 and exports during these years may include some further processed products (e.g. mouldings) as well as sawnwood. The removal of these levies under the IMF plan resulted in Indonesian exports remaining relatively stable in 1998, despite the Asian crisis. Sawnwood exports from Brazil, Côte d'Ivoire and Indonesia decreased in 1997, while Cameroon's exports increased. Other major traders are Ghana, Honduras, Bolivia and the Philippines, all with 1997 exports of over 100,000 m^3. Bolivian sawnwood exports, primarily of mahogany to the United States and the United Kingdom, reached 133,000 m^3 in 1997 after growing rapidly in the early 1990's, but fell to 83,000 m^3 in 1998. Exports from Honduras are mostly tropical pine sawnwood.

ITTO consumer countries exported 248,000 m^3 of tropical sawnwood worth about $156 million in 1997, primarily (83%) from the EU countries. EU exports of tropical sawnwood increased from 167,000 m^3 in 1995 to 207,000 m^3 in 1997. The Netherlands, a larger tropical sawnwood exporter than most producing countries, was the main EU sawnwood exporter, although its exports have decreased by 29% since 1994 to 65,000 m^3 in 1997. The unit value of the Netherlands' sawnwood exports, $662/m^3 in 1997, was slightly below the average export unit value for consumers but 81% more than the average unit value for all ITTO members, indicating that mostly high-value species of (or high value-added) sawnwood are being exported. Tropical sawnwood exports from the Netherlands and other EU countries are absorbed almost wholly within Europe.

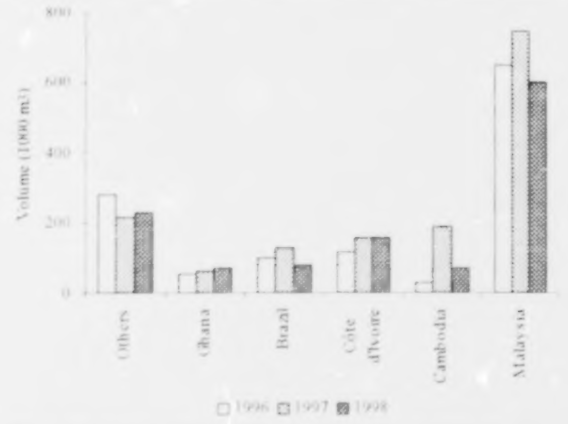
(iii) Veneer

ITTO producer country veneer exports fell 21% in 1998 to 1.1 million m^3 after a similar rise in 1997. Total ITTO producing member exports were over 1.4 million m^3 (worth almost $547 million) in 1997. ITTO producer countries accounted for 90% of exports of veneer by tropical countries (92% by value) and 46% (27% by value) of global exports in 1997. Malaysia continues to be ITTO's dominant veneer exporter, with exports of 746,610 m^3 in 1997 accounting for 53% of total ITTO producer member exports (graph 13.3.3). Veneer exports in 1997 were split between Sarawak and Sabah in a 3 to 1 ratio, with minimal exports from Peninsular Malaysia. Malaysian exports, worth $278 million in 1997, are mainly directed to China, Taiwan Province of China, Republic of Korea, Japan and the Philippines. Malaysia's exports dropped 9% by volume and 49% by value (dollar terms) in 1998.

Cambodia was the second-largest tropical veneer exporter in 1997 at 188,670 m^3, a jump of almost seven times from reported 1996 exports. This large increase needs to be clarified, but reports by trading

GRAPH 13.3.3

Major tropical veneer exporters, 1996 to 1998



Source: ITTO, 1999

partners confirm the 1997 figure. Cambodia's main markets are China, Taiwan Province of China and Japan. Côte d'Ivoire is the third substantial tropical veneer exporter with exports increasing from 115,000 m^3 in 1996 to 155,000 m^3 in 1997. Côte d'Ivoire's exports are primarily to the EU and the United States.

The EU accounted for 72,000 m^3 of total consumer country tropical veneer exports of 87,000 m^3 in 1997, with 1998 levels of EU exports increasing to 73,000 m^3. France, Belgium-Luxembourg and Germany are the largest EU tropical veneer exporters. Total exports by ITTO consumer countries decreased to 86,000 m^3 in 1998.

(iv) Plywood

Driven by decreased Indonesian exports, tropical plywood exports fell 4% in 1998 to 11.5 million m^3, following a 10% decline in 1997. In 1997, total ITTO producer member exports of 12 million m^3 (worth almost $4.7 billion) comprised 91% of tropical country plywood exports (92% by value). ITTO producing members accounted for about 57% of global exports of all types of plywood by volume (58% by value), the only forest product for which tropical countries have captured a clear majority of the global market.

Indonesia continues to dominate the trade in tropical plywood with the 8.3 million m^3 exported in 1997 constituting almost 70% of total ITTO producer member exports, although this is down from 84% in 1991 (graph 13.3.4). Indonesia earned an estimated $3.9 billion from plywood in 1997, down by 3% from the previous year. Indonesia's exports dropped a further 4% by volume in 1998, but value plummeted 36% due to the sharp decline in plywood prices and the economic strife in its major markets in Asia last year. Indonesia shifted some of its exports to China, the Middle East, Europe and the United States in 1998 due to the downturn in the primary Asian markets of Japan and Korea.

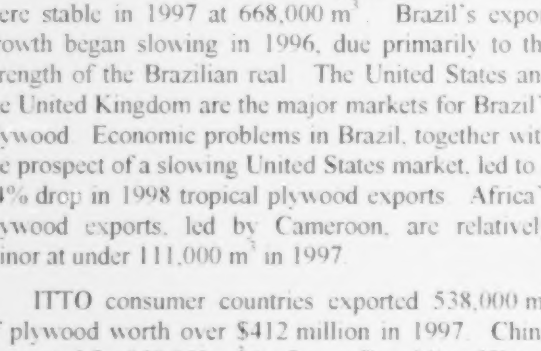
Malaysia is Indonesia's major competitor in the tropical plywood trade. Malaysian exports have been growing steadily, reaching 3.8 million m^3 in 1997, before dropping to 3.5 million m^3 in 1998. Malaysia's rapid growth in plywood exports in the 1990s has been due to the construction of new plywood mills in Sabah and Sarawak to process formerly exported veneer logs. The two eastern Malaysian states accounted for 42% and 50% of Malaysian plywood exports, respectively, in 1997. In 1997 Malaysia exported almost $1.7 billion worth of plywood, mainly to Japan, China (including Taiwan Province of China) and non-ITTO members Singapore and Hong Kong. Malaysia's exports in dollar terms (as for other products) plunged in 1998 to under $900 million.

Latin American plywood exports, led by Brazil, were stable in 1997 at 668,000 m^3. Brazil's export growth began slowing in 1996, due primarily to the strength of the Brazilian real. The United States and the United Kingdom are the major markets for Brazil's plywood. Economic problems in Brazil, together with the prospect of a slowing United States market, led to a 14% drop in 1998 tropical plywood exports. Africa's plywood exports, led by Cameroon, are relatively minor at under 111,000 m^3 in 1997.

ITTO consumer countries exported 538,000 m^3 of plywood worth over $412 million in 1997. China accounted for 140,000 m^3 (to Japan, Republic of Korea and Taiwan Province of China), the EU (primarily France, Belgium-Luxembourg and the Netherlands to other EU countries) for 276,000 m^3 and the United States for 79,000 m^3. Exports from the EU increased

GRAPH 13.3.4

Major tropical plywood exporters, 1996 to 1998



Source: ITTO, 1999

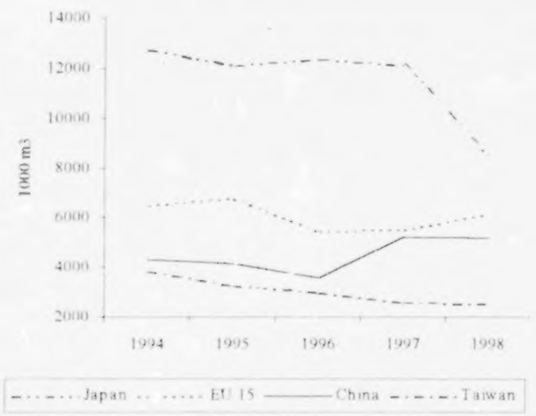
in 1998, driving ITTO consumer country exports of tropical plywood up by 23% to 664,000 m^3.

13.4 Imports

Japan is by far the world's largest importer of tropical timber products. However, its imports fell rapidly in 1998 due to economic recession (graph 13.4.1) (table 13.4.1). Imports of all products from all regions were down significantly, with African log imports and European log/sawn imports the hardest hit. While imports of sawnwood have fallen equally from both temperate and tropical suppliers, it appears that tropical log and plywood imports have fallen much more sharply than their temperate counterparts. Japan's economy is predicted to rebound slightly in 1999, with the government providing stimuli to spur new home construction. This should result in some increase in levels of imports, although nowhere near pre-recession levels. At the end of 1998 Japan reported 398 operational plywood and veneer mills and 12,810 sawmills, down 14.6% and 5.1% respectively from 1997 totals.

GRAPH 13.4.1

Imports of tropical wood products*, 1994 to 1998



* Tropical wood products here are logs sawnwood, veneer and plywood together.

Source: ITTO, 1999.

TABLE 13.4.1

Decreases in Japanese Timber Imports in 1998

Product	*Imports, 1998 (1000 m^3)*	*Change from 1997 (%)*
Temperate logs	11,521	-19
North American	4,722	-17
European	91	-45
Russian	4,720	-25
NZ/Chilean	1,988	-6
Tropical logs	3,433	-40
Asian	3,310	-36
African	123	-75
Temperate sawnwood	6,317	-42
North American	4,631	-37
European	744	-60
Russian	310	-24
NZ/Chilean	632	-34
Tropical sawnwood	798	-37
Temperate plywood	445	-9
Tropical plywood	3,840	-21

Source: ITTO, 1999.

TABLE 13.4.2

Value of some ITTO countries imports of tropical wood products, 1996 to 1997

($ million)

	1996	*1997*	*% change 1997/1996*	*% share of total*
Japan	4,635	4,429	-4.4	37.0
European Union 15	2,511	2,484	-1.1	20.7
Taiwan	1,009	795	-21.2	6.6
China	964	1,327	37.7	11.1
United States	690	754	9.3	6.3
Others	2,645	2,195	-17.0	18.3
Total	12,454	11,984	-3.8	100.0

Source: ITTO, 1999.

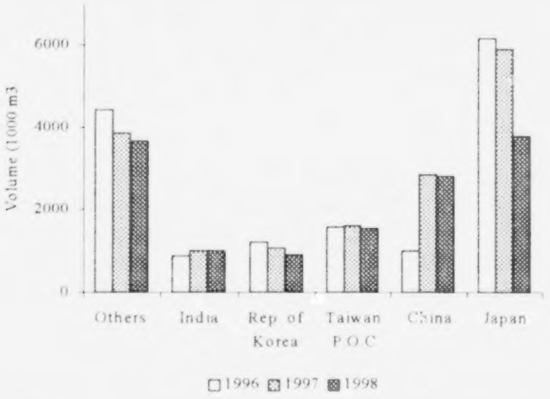
Some other countries imported fewer tropical logs, sawnwood, veneer and plywood too (table 13.4.2). The EU, the second largest group of tropical wood importers, decreased imports by 1.1%, despite currency devaluations which made them more attractive. China and the United States imported more primary tropical wood products, and although the table does not show it, they also increased their imports of secondary forest products.

(i) Logs

In 1998, total imports of tropical hardwood logs by ITTO members (consumers and producers) fell by 15.9% to 13.7 million m^3 after rising by 7% to 16.3 million m^3 (worth about $3.2 billion) in 1997. Japan still dominates the global tropical log market, with 5.9 million m^3 (worth almost $1.18 billion) imported in 1997, 48% of which came from Sarawak, down almost 8% from 1996 (graph 13.4.2). Japanese tropical log imports fell 5% in 1997 due to its declining economy and reduced supplies from Malaysia. The recession in 1998 drove Japanese demand for tropical logs down a further 40%, to less than 3.5 million m^3, still met primarily by output from Malaysia. Japan's imports from Africa (mostly from Gabon and Cameroon) reached 513,000 m^3 in 1997, before collapsing back to 123,000 m^3 in 1998. Imports from PNG increased to over 1.9 million m^3 in 1997

GRAPH 13.4.2

Major tropical log importers, 1996 to 1998



Source: ITTO, 1999.

from 1.7 million m^3 a year earlier, but also fell sharply (to under 1 million m^3) in 1998.

China is the second-largest ITTO tropical log importer, with imports of about 2.9 million m^3 (worth just over $505 million) in 1997, almost triple 1996 imports. China's growing population and economy drove this increase, with import levels maintained at a high level in 1998 due to continuing relatively high growth and construction to repair damage caused by severe floods during the year. It bears mentioning that in the "absence" of Japan during 1998, China provided the momentum for tropical timber markets, as its currency did not devalue. The Chinese National Bureau of Forestry has estimated that more than 10 million m^3 of logs, sawnwood, veneer, plywood, etc., both temperate and tropical, will have to imported in 1999. Domestic production of all wood products is forecast to be 49.4 million m^3 which is below the forecast demand of the 60 million m^3 according to the National Bureau of Forestry. Floods in 1998 which were partly blamed on the loss tree cover, have resulted in logging bans and restrictions which could affect 80% of China's forest. These same floods damaged 5 million homes (*Timber & Wood Products*). (Official Chinese statistics do not include Taiwan Province of China or Hong Kong.)

The Republic of Korea is also a major ITTO log consumer, absorbing almost 1.1 million m^3 (worth over $194 million) in 1997 from PNG (41%) and Malaysia (32% of total imports, down from 71% in 1993). Korea's imports were down over 12% from 1996 levels, with a further 15% decrease to 0.9 million m^3 in 1998. Korea, like Japan and some other Asian consumers, is undertaking to shift processing capacity to producing countries, closer to resources and less expensive labour. Korea's imports of logs from Africa grew from 21,000 m^3 in 1992 to 251,000 m^3 in 1994. However, the ban on exports from Ghana (Korea's main African supplier in these years) led to a sharp drop in imports from Africa, to 6,000 m^3 in 1996 before recovering to 31,000 m^3 in 1997. Korea's main African suppliers are now Gabon and Cameroon. Much of Korea's tropical log supply is now being sourced from the Solomon Islands, which provided 207,000 m^3 of logs in 1997.

The EU countries imported almost 1.9 million m^3 of tropical logs worth $469.8 million in 1997, most of which came from African producers. European log imports fell 5% in 1997 due to depressed demand and continuing competition from Asian log buyers in Africa. France remains the largest of the EU log importers, but its imports fell by almost 8% in 1997, to 739,000 m^3 before rebounding by 22% to 901,000 m^3 in 1998. The bulk of France's tropical log supplies come from Gabon, Cameroon and Republic of Congo. Portugal, Spain and Italy are also major European log importers, each with over 230,000 m^3 of log imports in 1997. European log imports rose 15% in 1998 to almost 2.2 million m^3, as African exporters returned to their traditional markets due to the problems in Asia.

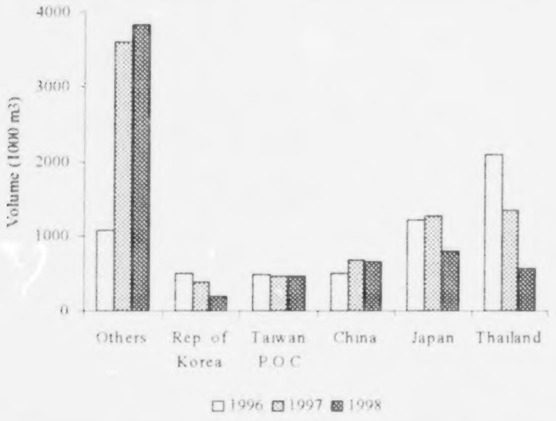
Several ITTO producing countries have become net importers of logs, indicating the extent of wood shortages in their domestic forest sectors. India (1,000,000 m^3), Thailand (838,738 m^3), Peninsular Malaysia (509,850 m^3) and the Philippines (493,000 m^3) were the major ITTO producer country importers of tropical logs in 1997, reflecting resource scarcity and increased timber demand in these countries. Malaysia reported that the bulk of its log imports (over 407,700 m^3) were from Indonesia. Some Malaysian imports are occurring under a Malaysian Timber Council scheme to assist processors in Peninsular Malaysia obtain logs for their own use. Apart from the Indonesian logs, shipments in 1996-97 were largely from PNG and Africa (mainly Cameroon). Total imports of tropical logs by ITTO producing members rose 2% in 1997, to over 2.9 million m^3, worth almost $574 million, before dropping 18% to just over 2.4 million m^3 in 1998.

(ii) Sawnwood

Total ITTO imports of tropical sawnwood decreased 12% to under 7.4 million m^3 in 1997 and fell a further 17% to just over 6.1 million m^3 in 1998. With 1997 imports of over 1.3 million m^3, Thailand remained the top ITTO sawnwood importer, although its imports dropped by over a third from the 2.1 million m^3 imported in 1996 (graph 13.4.3). Thai imports crashed to 555,000 m^3 in 1998 as the

GRAPH 13.4.3

Major tropical sawnwood importers, 1996 to 1998



Source: ITTO, 1999.

economic woes plaguing the country took their toll on its large furniture and secondary processing industries. Thailand's imports of all timber were worth just over \$631 million in 1997, down from \$986 million in 1996, with imports of tropical sawnwood (\$371 million) accounting for over half.

Japanese tropical sawnwood imports were up 5% to about 1.3 million m^3 worth almost \$852 million in 1997, falling dramatically in 1998 due to economic recession. Both Thailand's and Japan's tropical sawnwood imports are primarily from Malaysia (73% and 45% respectively in 1997). Japan also imported substantial quantities of sawnwood from Indonesia (42%) in 1997. China was the third largest ITTO importer of tropical sawnwood in 1997 at almost 661,000 m^3, declining slightly to 650,000 m^3 in 1998. Taiwan Province of China, the Republic of Korea, Brazil and Spain are also major tropical sawnwood importers. Imports by Taiwan Province of China and Republic of Korea were primarily from Malaysia and (to a lesser extent) Indonesia; Spain's from Africa; and Brazil's from neighboring Paraguay. As the size of the bar for "Others" in graph 13.4.2 indicates, the tropical sawnwood market is the most diversified of all primary tropical timber products, with the five largest importers accounting for only slightly over half of total ITTO imports in 1997.

Total tropical sawnwood imports by EU countries rose by 7% in 1997 to over 1.9 million m^3 (worth \$1 billion). More than half of this was supplied by Asian producers, principally Malaysia. Côte d'Ivoire, Ghana, Cameroon and Brazil supplied virtually all of the remainder of EU imports. EU imports increased almost 14% in 1998 to 2.2 million m^3. Spain is the largest importer of tropical sawnwood in the EU, absorbing 368,000 m^3 in 1997 and 426,000 m^3 in 1998. Netherlands (330,000 m^3), the United Kingdom (300,000 m^3) and France (276,000 m^3) were other major EU tropical sawnwood importers in 1997. All these countries, except the United Kingdom, increased their imports of tropical sawnwood in 1998.

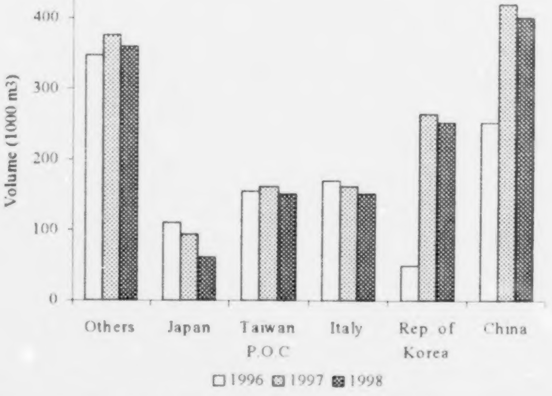
(iii) Veneer

Many importing countries do not differentiate between the various types of veneer and plywood (e.g. softwood/hardwood, temperate/tropical). For plywood, different types of wood are increasingly used in panel production. This lack of resolution in trade statistics is compounded by the fact that countries use a wide variety of scales to measure trade in panel products. Some countries use volume, some use surface area and still others use weight. All of these can be reported in metric or imperial units, depending on the country. Some countries report trade in all veneers and panels (tropical and non-tropical) while others aggregate veneer and plywood into a single category. The adoption of a standard measurement system for panel products and veneer is a priority if improvements in the accuracy of these statistics are to be achieved.

Imports of veneer to most destinations declined in 1998, in aggregate by 7.6%, after a strong surge in 1997. Total ITTO imports of tropical veneer rose 37% to about 1.5 million m^3 (worth over \$760 million) in 1997. The large jump in imports was due primarily to surges in demand by China and Korea, which accounted for 28% and 18%, respectively, of this total (graph 13.4.4); Taiwan Province of China made up 11% and members of the EU (led by Italy) accounted for an aggregate 24%. Imports by all of these

GRAPH 13.4.4

Major tropical veneer importers, 1996 to 1998



Source: ITTO, 1999.

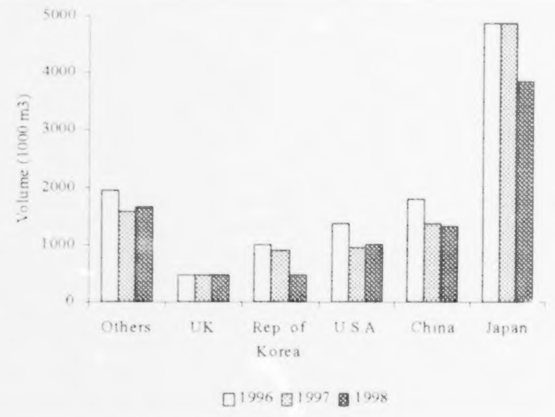
destinations declined in 1998. Imports by Asian countries are primarily sourced from Malaysia (although China reported imports of over 111,000 m^3 from Cambodia), while the majority of European imports are from African producers (mainly Côte d'Ivoire, but increasingly also from Ghana and the Republic of Congo).

(iv) Plywood

Total ITTO imports of tropical plywood fell by 9% to almost 10.1 million m^3 (worth just under $4.9 billion) in 1997. Plywood imports fell by 12.9% in 1998, to about 8.8 million m^3, led by a 21% decrease in Japanese demand. Exports of tropical plywood by ITTO members continue to substantially exceed aggregate imports by members, indicating the dominant position of ITTO producers in world markets for this product (graph 13.4.5). The majority of all tropical plywood imports came from Indonesia and Malaysia (54% and 38% respectively in 1997 for the top importer, Japan). Japan continues to replace domestic plywood production with imported plywood (tropical and non-tropical) and substitutes like OSB and MDF. Its imports dropped 21% in 1998, however, to 3.8 million m^3 due to the slowdown in construction accompanying the recession. China, with almost 1.4 million m^3, continued as the second largest ITTO importer of tropical plywood despite a 24% drop in 1997. Chinese imports fell again in 1998 to 1.3 million m^3. It appears that China is replacing at least part of its plywood imports with panels produced domestically using its increasing volume of imported logs and other raw materials. The United States imported 945,000 m^3 of tropical plywood in 1997, 68% of which came from Indonesia. United States imports rose 15% to about 1.1 million m^3 in 1998.

GRAPH 13.4.5

Major tropical plywood importers, 1996 to 1998



Source: ITTO, 1999.

EU imports of tropical plywood totaled just over 1.3 million m^3 (worth over $715 million) in 1997, slightly up from the 1996 level. Most of this supply came from Indonesia and Malaysia, with Brazil, Guyana, and inter-European trade providing the bulk of the remainder. European imports of tropical plywood rose again by over 7% to just over 1.4 million m^3 in 1998. The major European importers (accounting for almost two-thirds of the total) are the United Kingdom, Germany and the Netherlands.

The Republic of Korea (895,000 m) and Taiwan Province of China (363 257 m^3) were also substantial tropical plywood importers in 1997. In Korea, tropical plywood imports fell by 10% in 1997 and again sharply in 1998 to 450,000 m^3. Indonesia has traditionally supplied almost all of Korea's plywood imports, but Malaysia increased its share from 18% in 1994 to 31% in 1997.

13.5 Tropical timber consumption

As expected with the economic crisis in 1998, consumption of tropical timber in producing countries did not continue to rise, but rather fell in the Asia Pacific region. Lack of traditional Asian export markets meant cuts in production in Latin America too, with the resulting decline in apparent

TABLE 13.5.1

Tropical forest products consumption, 1997 and 1998
(1000 m^3)

		1997	1998	% change 1998/1997
AFRICA				
	logs	5,734	5,979	4.3
	sawnwood	841	931	10.7
	veneer	122	168	37.7
	plywood	168	186	10.7
ASIA PACIFIC				
	logs	76,015	72,327	-4.9
	sawnwood	19,601	18,077	-7.8
	veneer	656	652	-0.6
	plywood	2,131	2,027	-4.9
LATIN AMERICAN/ CARIBBEAN				
	logs	36,767	35,589	-3.2
	sawnwood	13,686	13,233	-3.3
	veneer	494	508	2.8
	plywood	1,290	1,267	-1.8
TOTAL				
	logs	118,516	113,895	-3.9
	sawnwood	34,128	32,241	-5.5
	veneer	1,110	1,328	19.6
	plywood	3,589	3,480	-3.0

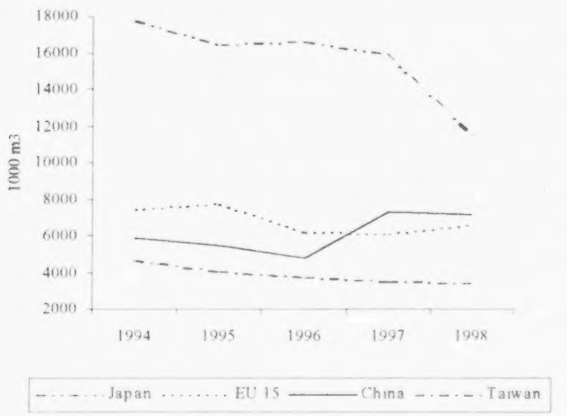
Source: ITTO, 1999.

consumption. Only in Africa was there an increase in consumption, albeit from a lower base, in 1998.

Consumption of tropical timber (logs, sawnwood, veneer and plywood) by Japan in 1998 fell sharply while at much lower volumes, EU consumption increased slightly, aided by lower prices (graph 13.5.1). China's consumption of tropical timber is increasing with population and domestic harvesting constraints. Secondary wood products consumption rose, especially in the EU and the United States, aided by producers' currency devaluations.

GRAPH 13.5.1

Consumption of tropical wood products*, 1994 to 1998



* Tropical wood products here are logs sawnwood, veneer and plywood together.

Source: ITTO, 1999.

13.6 Tropical timber price trends

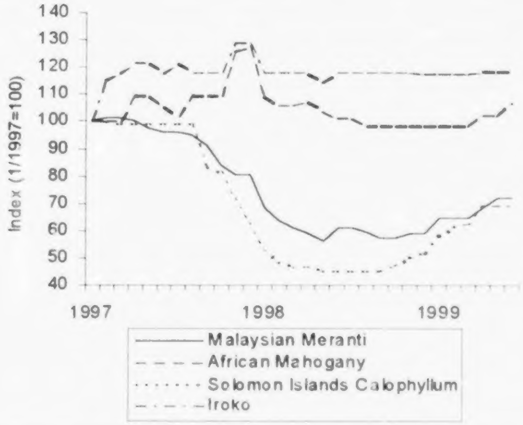
Real prices for most primary tropical timber products and species declined or at best remained stable during early 1998, although there were significant fluctuations in some prices. The sharp economic downturn in Asia, that began in mid 1997, resulted in a strong downward pressure on prices for most products from all regions.

The decline in prices has been much more severe for tropical primary products (logs, sawnwood and plywood) than for secondary processed wood products. By the end of the year prices had stabilised and there was a discernible upward trend in FOB prices as producers, especially in Asia experienced log shortages due to poor harvesting conditions. A steadying and even firming of prices was also seen in Japan and to some extent in Korea as fiscal stimulus packages in Japan and rapid reforms in Korea stimulated construction activity.

Asian log prices declined for most major species during 1998, as did prices for major export species of Asian sawnwood (graph 13.6.1). Asian log and sawnwood prices were affected by the rapid depreciation in the currencies of the main Asian importers such as Thailand, Japan and the Republic of Korea since the second half of 1997 and by the consequent economic decline, which has caused a severe fall in demand.

GRAPH 13.6.1

Tropical log price, 1997 to 1999

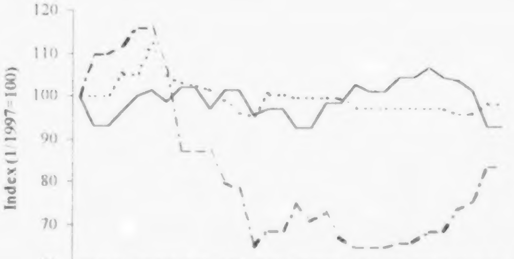


Source: ITTO, 1999.

African log and sawnwood prices remained stable or declined only slightly, being buoyed by steady demand in Europe. Any decline was largely as a consequence of lower demand in Japan and Southeast Asia, coupled with increased competition from low cost Asian logs. Only African mahogany sawnwood prices showed some recovery in 1998 as the furniture

GRAPH 13.6.2

Tropical sawnwood prices, 1997 to 1999



Source: ITTO, 1999.

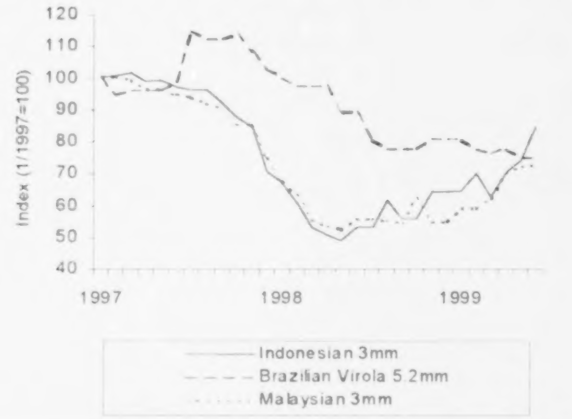
sector of some EU countries boosted imports (graph 13.6.2). Teak log prices have remained fairly stable as the demand for this product remained firm in many markets.

Latin American exports have been drastically affected by low prices in Asia. Nonetheless, prices of mahogany sawnwood exports remained relatively stable in the first half of 1998, in part due to an announcement extending the moratorium on new felling of mahogany. Strong demand in the United States allowed plywood producers in Brazil to improve prices and, in particular, prices of Brazilian pine plywood rose significantly.

Asian plywood prices continued to free fall during the first half of 1998 but showed signs of steadying in the latter part of the year (graph 13.6.3). Prices for thin boards from Indonesia and Malaysia into the Asian market plummeted over 30% in 1997 and fell another 25-30% in 1998. Prices in the region of $205-210 per m^3 were certainly below production cost for many mills as evidenced by the sad closure of many mills in the producer countries. The consequences of low prices have also been severe in Japan and Korea where mill closures are running at record levels. Domestic mills using tropical logs cannot compete because of the higher production costs and have been forced to close.

GRAPH 13.6.3

Tropical plywood prices, 1997 to 1999



Source: ITTO, 1999.

One consequence of production declines and mill closures in the industries around the world has been the serious loss of jobs in the sector at a time when job opportunities are weak because of the general economic downturn in most countries.

In the first half of 1998 Asian plywood prices continued to be at very low levels and stagnant demand in Japan suggested no real improvement in the short term. Apart from the economic turmoil in Asia and supply and demand determinants, the recorded prices for tropical timber products in all regions in 1998 have also fluctuated due to exchange rate variations.

13.7 Strengthening Asian currencies

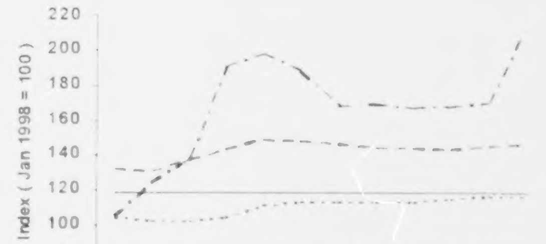
Over the past 12 months currencies in the Asian producer countries have strengthened considerably the lows at the height of the "crisis". There now seems to be real momentum in strengthening of the currencies and over the past six months some of the wide fluctuations, a feature of the trends in early 1999, are now under control.

Between January-June 1998 the Thai baht strengthened by around 35% against the dollar while the Philippine peso and the Indonesia rupiah posted more modest gains of between 5-10% (graph 13.7.1). The Malaysian ringgit fell to below 4.5 to the dollar in 1998 but was taken out of trade at a fixed rate of 3.8 to the dollar in late 1998. At the present time the ringgit at 3.8 to the dollar is considered undervalued against the dollar (in relation to the baht and peso) and an adjustment of the fixed rate of exchange is anticipated before year end.

Between January and June 1999 the Asian currencies have maintained their strengthened positions and, with the exception of the Indonesian rupiah, have traded against the dollar in fairly narrows bands. The Indonesian rupiah, the worst affect during the currency crisis in late 1997 and early 1998 has moved rapidly from a low of 14,750 rupiah to the dollar in January 1998 to around 8,500 in mid 1999.

GRAPH 13.7.1

Trends in exchange rates for Asian currencies, 1998-1999



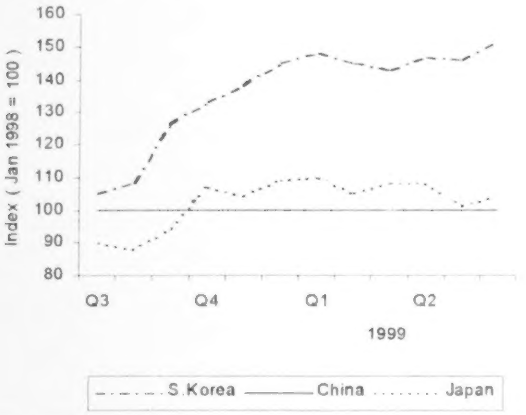
Source: ITTO, 1999.

Currently the rupiah is at a high of 6900 to the dollar, but still well below the 2500 level before the crisis.

In the main Asian consumer countries, Japan Korea and China the fortunes of the currencies have been mixed (graph 13.7.2). To the relief of suppliers the yuan has been maintained at around 8.27 to the dollar despite periodic rumors of devaluation. The Korean won has stage a welcome comeback moving from a low of 1750 to a level of 1150-1160 in June 1999. As imports have grown cheaper, Korean buyers are a welcome sight in the market. In Japan, after erratic swings in the value of the yen between 140 and 120 to the dollar the currency is being held in a narrower range of between 120-125 and the Japanese central bank has been intervening in the market to buy dollars when the yen has strengthened too much. The managed stability in the yen has encouraged buyers to risk longer term commitments and there is an encouraging stability in the market as a result.

GRAPH 13.7.2

Currency fluctuations for Asian currencies, 1998-1999



Source: ITTO, 1999.

13.8 Conclusion

Tropical timber markets have undergone tremendous changes in 1997 and 1998 and appear to be recovering in 1999. The lessons learned during the economic crisis will persist and both producers and consumers are maintaining lower stocks, restructuring their corporations, diversifying their markets and in general, changing the methods and means of tropical timber production and trade. Eventually, with growing populations and strengthened economies, additional tropical producers will become tropical consumers and domestic consumption should rise in all countries, but at varying degrees. Tropical timber markets are directly influenced by large differences in wage rates and other costs of production between producers and consumers and countries like Japan keep expanding their production capacity–but not domestically, but rather through joint ventures and off-shore investments.

The ITTO did not have statistics for secondary wood products in their *Annual Market Review* this year, but the trends for importing tropical furniture, mouldings and other products appear, based on both consumer and producer reports, seems to have been reinforced due to currency devaluations. Some countries like Malaysia weathered the economic storm through production of further value-added products.

ECE region countries which export to Asian countries have not fully recovered from the 1997/1998 crisis. However, signs were optimistic in early and mid 1999, but exporters remained cautious and do not express the same optimism as in 1997 when this *Review* described Europe's rise to second largest sawn softwood supplier to Japan. Still with Japan's construction of over 1 million houses per year, the market for wood and wood products is the world's second largest (preceded by the United States). As other Asian economies rise out of recession tropical timber markets are re-emerging in a restructured form characterized by new trading channels, more value-added production and increased domestic consumption.

ANNEX TABLE 1

Sawn softwood

Apparent consumption

	Total (1000 m³)				*Per capita m3/1000*	*Change (%) from 1997*
	1995	*1996*	*1997*	*1998*	*1998*	*to 1998*
Austria	3912	4850	4320	4511	559.0	4.4
Belgium-Luxembourg	1896	1871	1875	1980	186.8	5.6
Bulgaria	176	176	176	176	21.2	0.0
Croatia	194	171	139	95	21.1	-31.7
Cyprus	89	90	88	85	113.3	-3.3
Czech Republic	1808	1824	1841	2027	196.8	10.1
Denmark	2159	1876	2453	2428	459.8	-1.0
Finland	2186	2375	3267	3157	614.2	-3.4
France	8003	7880	8174	8504	145.1	4.0
Germany	15930	15985	17067	16775	204.3	-1.7
Greece	583	583	454	458	43.7	0.9
Hungary	795	846	761	754	74.3	-0.9
Ireland	742	662	709	679	192.9	-4.2
Israel	369	369	369	369	63.3	0.0
Italy	5363	5330	5896	5925	103.0	0.5
Netherlands	2515	2678	2858	2831	181.5	-0.9
Norway	2121	2425	2758	2787	632.0	1.1
Poland	3781	3829	4320	4309	111.5	-0.3
Portugal	770	828	879	917	93.5	4.3
Romania	384	369	200	247	10.9	23.7
Slovakia	82	189	231	124	23.0	-46.3
Slovenia	118	223	130	326	163.8	150.8
Spain	3585	3476	3576	3576	91.0	0.0
Sweden	4591	3308	4623	4022	454.5	-13.0
Switzerland	1736	1590	1354	1501	211.7	10.9
The f.Y.R of Macedonia	32	30	51	61	28.1	19.7
Turkey	2504	2453	2129	2275	35.7	6.9
United Kingdom	7061	7431	8624	8614	146.1	-0.1
EUROPE	73574	73804	79410	79600	137.4	0.2
Belarus	823	823	859	853	83.5	-0.7
Estonia	64	-109	111.3	160	108.8	43.8
Latvia	254	228	511	579	234.4	13.4
Lithuania	155	330	386	581	156.6	50.5
Moldova	82	82	82	82	19.0	0.0
Russian Federation	16931	13188	12224	10939	74.2	-10.5
Canada	12542	12978	16904	17514	578.4	3.6
United States	112007	119060	120081	123099	459.5	2.5
North America	124549	132038	136985	140613	471.6	2.6

ANNEX TABLE 2

Sawn hardwood

Apparent consumption

	Total (1000 m³)				*Per capita (m³/1000)*	*Change (%) from 1997 to 1998*
	1995	*1996*	*1997*	*1998*	*1998*	
Austria	262	255	273	305	37.8	11.7
Belgium-Luxembourg	664	745	855	970	91.5	13.5
Bulgaria	42	42	42	42	5.1	0.0
Croatia	77	83	105	121	26.9	15.6
Cyprus	20.5	20.8	20.6	20.8	27.7	1.0
Czech Republic	370	433	337	347	33.7	3.0
Denmark	251	250	279	300	56.8	7.5
Finland	143	100	100	107	20.8	7.0
France	2779	2765	2807	2969	50.7	5.8
Germany	1568	1393	1535	1727	21.0	12.5
Greece	141	141	63	66	6.3	4.8
Hungary	94	98	70	58	5.7	-17.1
Ireland	84	41	113	146	41.5	29.2
Israel	23	23	23	23	3.9	0.0
Italy	2748	2431	2620	2796	48.6	6.7
Netherlands	722	614	596	572	36.7	-4.0
Norway	57.5	85	86	83	18.8	-3.5
Poland	865	619	687	570	14.7	-17.1
Portugal	589	605	635	666	67.9	4.9
Romania	650	439	423	413	18.3	-2.3
Slovakia	112	98	77	161	29.9	108.0
Slovenia	133	125	124	116	58.3	-6.5
Spain	1457	1177	1555	1555	39.5	0.0
Sweden	323	293	337	352	39.8	4.5
Switzerland	175	134	191	253	35.7	32.5
Turkey	1827	1789	1844	2112	33.1	14.5
United Kingdom	682	715	741	630	10.7	-15.0
EUROPE	16847	15503	16559	17508	30.2	5.7
Belarus	610	610	601	600	58.7	-0.2
Estonia	26	24	42	36	24.5	-14.3
Latvia	159	20	18	88	35.6	388.9
Lithuania	41	56	20	87	23.5	341.6
Moldova	...	56	57	57	13.2	0.0
Russian Federation	3712	4141	3725	3369	22.8	-9.6
Canada	1216	1069	859	799	26.4	-7.0
United States	27547	27476	28650	30653	114.4	7.0
NORTH AMERICA	28763	28545	29509	31452	105.5	6.6

ANNEX TABLE 3

Particle board

Apparent consumption

	Total (1000 m³)				*Per capita (m³/1000)*	*Change (%) from 997 to*
	1995	*1996*	*1997*	*1998*	*1998*	*1998*
Austria	818	741	746	784	97.1	5.1
Belgium-Luxembourg	1196	1382	699	704	66.4	0.7
Bulgaria	127	127	127	127	15.3	0.0
Croatia	55	68	77	78	17.5	2.1
Cyprus	42	42	42	40	53.9	-2.7
Czech Republic	437	391	447	477	46.3	6.7
Denmark	584	560	681	864	163.6	26.9
Finland	277	433	314	301	58.6	-4.1
France	2423	2461	2636	2870	49.0	8.9
Germany	9412	8847	9276	9483	115.5	2.2
Greece	262	262	269	280	26.7	4.1
Hungary	346	284	341	351	34.5	2.9
Ireland	96	132	157	293	83.2	86.6
Israel	124	124	124	124	21.3	0.0
Italy	2699	2454	3236	2740	47.6	-15.3
Netherlands	628	547	649	642	41.2	-1.1
Norway	239	231	256	341	77.3	33.2
Poland	1741	2024	2414	2706	70.0	12.1
Portugal	342	406	307	391	39.9	27.4
Romania	241	288	299	264	11.7	-11.6
Slovakia	235	225	257	238	44.2	-7.4
Slovenia	218	210	314	335	168.3	6.7
Spain	1998	2167	2167	2167	55.1	0.0
Sweden	792	693	724	599	67.7	-17.3
Switzerland	441	368	347	396	55.9	14.1
The f.Y.R. of Macedonia	32	30	51	61	28.1	19.7
Turkey	1236	1180	1722	1498	23.5	-13.0
United Kingdom	3054	3094	3096	3197	54.2	3.3
EUROPE	30250	29929	31912	32482	56.1	1.8
Estonia	183	71	93	96	65.3	2.9
Latvia	47	38	44	42	17.0	-4.5
Lithuania	63	71	75	106	28.6	41.3
Moldova	31	31	31	31	7.2	0.0
Russian Federation	2054	1430	2302	1775	12.0	-22.9
Ukraine	...	240	243	243	4.8	0.0
Canada	1236.5	1857	2144	1923	63.5	-10.3
United States	17423	20186	13447	14662	54.7	9.0
NORTH AMERICA	18660	22043	15591	16585	55.6	6.4

ANNEX TABLE 4

Plywood

Apparent consumption

	Total (1000 m^3)				*Per capita (m^3/1000)*	*Change (%) from 1997 to 1998*
	1995	*1996*	*1997*	*1998*	*1998*	
Austria	136	115	104	91	11.3	-12.5
Belgium-Luxembourg	124	192	272	224	21.1	-17.6
Bulgaria	14	14	14	14	1.7	0.0
Croatia	9	11	8	10	2.3	22.6
Cyprus	9	9	9	9	11.9	-1.1
Czech Republic	67	74	54	46	4.5	-14.8
Denmark	171	149	163	219	41.5	34.4
Finland	130	97	149	187	36.4	25.5
France	636	579	653	639	10.9	-2.1
Germany	1526	1352	1391	1341	16.3	-3.6
Greece	59	59	20	21	2.0	5.0
Hungary	19	12	27	27	2.6	0.0
Ireland	67	38	80	94	26.7	17.5
Israel	117	117	117	117	20.1	0.0
Italy	645	580	601	659	11.5	9.7
Netherlands	495	473	517	517	33.1	0.0
Norway	72	95	118	107	24.3	-9.3
Poland	93	87	102	95	2.5	-6.9
Portugal	28	26	30	33	3.4	10.0
Romania	26	37	28	32	1.4	15.5
Slovakia	18	12	22	25	4.6	10.3
Slovenia	64	14	20	30	15.1	50.0
Spain	199	169	169	169	4.3	0.0
Sweden	157	142	163	170	19.2	4.3
Switzerland	136	128	137	140	19.7	2.2
The f.Y.R of Macedonia	76	76	77	77	35.5	0.3
Turkey	148	95	88	70	1.1	-20.5
United Kingdom	1107	1110	936	950	16.1	1.5
EUROPE	6399	5909	6116	6161	10.6	0.7
Belarus	...	40	56	56	5.4	0.0
Estonia	10	11	3	13	8.8	333.3
Latvia	...	...	11	14	5.7	27.3
Lithuania		5	14	23	6.2	59.7
Russian Federation	269	366	341	416	2.8	22.0
Canada	1366	1368	1398	1368	45.2	-2.1
United States	17536	17521	16170	17024	63.5	5.3
NORTH AMERICA	18902	18889	17568	18392	61.7	4.7

ANNEX TABLE 5

Fibreboard

Apparent consumption

	Total (1000 m^3)				*Per capita (m^3/1000)*	*Change (%) from 1997 to 1998*
	1995	*1996*	*1997*	*1998*	*1998*	
Austria	96	70	133	150	18.6	12.8
Belgium-Luxembourg	168	167	56	79	7.5	42.2
Bulgaria	61	61	61	61	7.3	0.0
Croatia	11	8	-42	-160	-35.5	283.9
Cyprus	30	30	30	30	39.3	0.0
Czech Republic	69	57	80	86	8.3	7.5
Denmark	106	102	102	102	19.3	0.0
Finland	102	109	122	122	23.7	0.0
France	273	288	382	424	7.2	11.0
Germany	975	823	641	484	5.9	-24.5
Greece	127	127	127	127	12.1	0.0
Hungary	34	37	56	55	5.4	-1.8
Ireland	120	134	204	160	45.5	-21.6
Israel	98	98	98	98	16.8	0.0
Italy	741	668	430	648	11.3	50.7
Netherlands	245	348	358	368	23.6	2.8
Norway	170	160	60	62	14.1	3.3
Poland	382	533	531	787	20.4	48.2
Portugal	185	97	31	54	5.5	74.2
Romania	31	68	43	37	1.7	-13.7
Slovakia	42	56	40	48	9.0	20.2
Sloven	118	223	130	326	163.8	150.8
Spain	485	504	509	509	12.9	0.0
Sweden	158	176	171	199	22.5	16.4
Switzerland	157	198	194	37	5.2	-80.9
Turkey	136	343	615	384	6.0	-37.6
United Kingdom	823	922	1144	1045	17.7	-8.7
EUROPE	5866	6226	6260	6102	10.5	-2.5
Latvia	7	4	9	11	4.5	18.3
Lithuania	21	13	25	23	6.1	-9.5
Moldova	18	18	18	18	4.1	0.0
Russian Federation	619	432	639	636	4.3	-0.5
Ukraine		44	47	47	0.9	0.0
Canada	506	561	465	526	17.4	13.2
United States	6326	6583	6598	6818	25.4	3.3
NORTH AMERICA	6832	7144	7063	7345	24.6	4.0

ANNEX TABLE 6

Newsprint

Apparent consumption

	Total (1000 m³)				*Per capita (m³/ 1000)*	*Change (%) from 1997*
	1995	*1996*	*1997*	*1998*	*1998*	*to 1998*
Austria	448	429	504	507	62.8	0.6
Belgium-Luxembourg	263	272	226	226	21.3	0.0
Bulgaria	6	6	6	6	0.7	0.0
Croatia	36	33	34	38	8.4	11.9
Cyprus	5	5	5	5	6.5	0.0
Czech Republic	46	45	75	81	7.9	8.6
Denmark	262	256	289	282	53.5	-2.4
Finland	344	306	298	321	62.5	7.7
France	794	757	797	804	13.7	0.9
Germany	2348	2098	2263	2385	29.0	5.4
Greece	69	69	69	69	6.6	0.0
Hungary	91	84	494	520	51.2	5.3
Ireland	62	70	72	71	20.2	-1.4
Israel	114	114	114	114	19.6	0.0
Italy	618	535	610	643	11.2	5.4
Netherlands	571	495	552	528	33.8	-4.3
Norway	220	195	10	-12	-2.7	-220.0
Poland	59	59	61	74	1.9	21.0
Portugal	69	75	86	86	8.8	0.0
Romania	50	53	49	62	2.7	26.5
Slovakia	41	23	24	25	4.6	1.2
Spain	496	485	496	496	12.6	0.0
Sweden	378	363	344	252	28.5	-26.7
Switzerland	297	269	285	308	43.4	8.1
Turkey	314	333	374	334	5.2	-10.7
United Kingdom	2262	2312	2406	2357	40.0	-2.0
EUROPE	10351	9776	10344	10611	18.3	2.6
Estonia	9	8	20	10	6.8	-49.5
Latvia	16	14	16	17	6.9	9.7
Lithuania	15	13	16	17	4.6	4.9
Russian Federation	436	378	377	380	2.6	0.8
Ukraine	—	74	66	66	1.3	0.0
Canada	78	424	232	958	31.6	312.9
United States	12682	11594	12646	12828	47.9	1.4
NORTH AMERICA	12760	12018	12878	13786	46.2	7.1

ANNEX TABLE 7

Other printing and writing paper

Apparent consumption

	Total (1000 m^3)				*Per capita (m^3/1000)*	*Change (%) from 1997*
	1995	*1996*	*1997*	*1998*	*1998*	*to 1998*
Austria	24	47	377	431	53.4	14.3
Belgium-Luxembourg	685	554	1017	1017	95.9	0.0
Bulgaria	33	33	33	33	4.0	0.0
Croatia	29	30	22	26	5.7	16.2
Cyprus	19	19	19	19	25.7	0.0
Czech Republic	247	259	298	264	25.6	-11.4
Denmark	343	328	370	378	71.6	2.2
Finland	817	925	791	790	153.7	-0.1
France	3662	3392	3648	3672	62.7	0.7
Germany	5437	5386	5775	6175	75.2	6.9
Greece	281	281	177	179	17.1	1.1
Hungary	151	151	208	251	24.7	21.0
Ireland	147	128	119	121	34.4	1.7
Israel	147	147	147	147	25.2	0.0
Italy	2879	2841	3099	2898	50.4	-6.5
Netherlands	836	998	1058	1056	67.7	-0.2
Norway	188	209	373	386	87.5	3.5
Poland	552	688	794	856	22.1	7.7
Portugal	267	269	295	291	29.7	-1.4
Romania	52	71	59	76	3.4	28.6
Slovakia	80	141	194	108	20.1	-44.3
Spain	1403	1578	1650	1650	42.0	0.0
Sweden	632	433	437	444	50.2	1.6
Switzerland	538	526	583	623	87.9	6.9
Turkey	299	346	383	404	6.3	5.5
United Kingdom	3785	3938	4167	4180	70.9	0.3
EUROPE	23308	23656	25989	26446	45.7	1.8
Estonia	21	23	8	15	10.2	87.5
Latvia	5	26	19	23	9.3	21.1
Lithuania	2	11	18	19	5.1	5.6
Russian Federation	385	326	351	330	2.2	-6.0
Ukraine	...	105	123	123	2.4	0.0
Canada	2733	2738	2592	2576	85.1	-0.6
United States	25659	25046	27918	28546	106.6	2.2
NORTH AMERICA	28392	27784	30510	31122	104.4	2.0

ANNEX TABLE 8

Chemical woodpulp

Apparent consumption

	Total (1000 m^3)				*Per capita (m^3/1000)*	*Change (%) from 1997*
	1995	*1996*	*1997*	*1998*	*1998*	*to 1998*
Belgium-Luxembourg	262	128	247	247	23.3	0.0
Bulgaria	121	121	121	121	14.6	0.0
Croatia	103	148	142	124	27.6	-12.6
Cyprus	19	19	19	19	25.7	0.0
Czech Republic	533	551	600	608	59.0	1.3
Denmark	253	243	273	325	61.6	19.2
Finland	664	1082	765	282	54.9	-63.1
France	2476	2043	2272	2591	44.2	14.0
Germany	513	633	468	663	8.1	41.7
Greece	165	165	165	165	15.7	0.0
Hungary	68	9	39	67	6.6	74.0
Ireland	157	138	124	128	36.4	3.2
Israel	85	85	85	85	14.6	0.0
Italy	480	394	580	354	6.2	-39.0
Netherlands	109	284	284	284	18.2	0.0
Norway	211	200	261	235	53.3	-10.0
Poland	925	1016	1115	1203	31.1	8.0
Portugal	1447	1379	1405	1401	142.8	-0.3
Romania	267	241	244	247	10.9	1.4
Slovakia	225	177	356	306	56.9	-14.0
Spain	2044	2211	2296	2296	58.4	0.0
Sweden	5779	5221	5313	5254	593.7	-1.1
Switzerland	220	230	300	306	43.2	2.0
Turkey	341	412	403	416	6.5	3.2
United Kingdom	2318	242.	2612	2619	44.4	0.3
EUROPE	19175	19029	20152	19938	34.4	-1.1
Estonia	...	...	44	56	38.3	27.1
Latvia	...	26	18	22	8.9	22.2
Lithuania	...	11	18	19	5.2	7.2
Russian Federation	3649	2669	2740	2729	18.5	-0.4
Ukraine	...	126	137	137	2.7	0.0
Canada	10438	10212	9878	9710	320.7	-1.7
United States	63054	61623	58256	57752	215.6	-0.9
NORTH AMERICA	73492	71835	68134	67462	226.2	-1.0

SOME FACTS ABOUT THE TIMBER COMMITTEE

The Timber Committee is a principal subsidiary body of the ECE (UN Economic Commission for Europe) based in Geneva. It constitutes a forum for cooperation and consultation between member countries on forestry, forest industry and forest product matters. All countries of Europe; the former USSR; United States of America, Canada and Israel are members of the ECE and participate in its work.

The ECE Timber Committee shall, within the context of sustainable development, provide member countries with the information and services needed for policy- and decision-making regarding their forest and forest industry sector ("the sector"), including the trade and use of forest products and, when appropriate, formulate recommendations addressed to member Governments and interested organizations. To this end, it shall:

1. With the active participation of member countries, undertake short-, medium- and long-term analyses of developments in, and having an impact on, the sector, including those offering possibilities for the facilitation of international trade and for enhancing the protection of the environment;
2. In support of these analyses, collect, store and disseminate statistics relating to the sector, and carry out activities to improve their quality and comparability;
3. Provide the framework for cooperation e.g. by organizing seminars, workshops and ad hoc meetings and setting up time-limited ad hoc groups, for the exchange of economic, environmental and technical information between governments and other institutions of member countries that is needed for the development and implementation of policies leading to the sustainable development of the sector and to the protection of the environment in their respective countries;
4. Carry out tasks identified by the UN/ECE or the Timber Committee as being of priority, including the facilitation of subregional cooperation and activities in support of the economies in transition of central and eastern Europe and of the countries of the region that are developing from an economic point of view;
5. It should also keep under review its structure and priorities and cooperate with other international and intergovernmental organizations active in the sector, and in particular with the FAO (Food and Agriculture Organization of the United Nations) and its European Forestry Commission and with the ILO (International Labour Organisation), in order to ensure complementarity and to avoid duplication, thereby optimizing the use of resources.

More information about the Committee's work may be obtained by contacting:

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UN/ECE Trade Division
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